

10/573,517

=> d his

(FILE 'HOME' ENTERED AT 12:01:11 ON 22 AUG 2008)

FILE 'REGISTRY' ENTERED AT 12:01:21 ON 22 AUG 2008

L1 33235 S 5-6-6-7/SZ  
L2 STRUCTURE UPLOADED  
L3 992 S L2 SUB=L1 FUL  
L4 1 S GALANTHAMINE/CN  
L5 852 S L3 AND CAPLUS/LC  
L6 140 S L3 NOT L5

FILE 'CAPLUS' ENTERED AT 12:05:22 ON 22 AUG 2008

L7 1635 S L3  
L8 ANALYZE L7 1- RN HIT : 852 TERMS

FILE 'REGISTRY' ENTERED AT 12:07:18 ON 22 AUG 2008

L9 2 S 357-70-0/RN OR 1953-04-4/RN  
L10 1 S 510-77-0/RN  
L11 1057 S 41303?/RN  
L12 10759 S 1668?/RN  
L13 1067 S 25650?/RN  
L14 1066 S 23173?/RN  
L15 10627 S 3891?/RN  
L16 1100 S 60384?/RN  
L17 990 S L3 NOT L9  
L18 2 S L3 AND L11  
L19 2 S L3 AND L12  
L20 1 S L3 AND L13  
L21 3 S L3 AND L14  
L22 1 S L3 AND L15  
L23 1 S L3 AND L16  
L24 983 S L17 NOT (L19 OR L20 OR L21 OR L23)

FILE 'CAPLUS' ENTERED AT 12:14:54 ON 22 AUG 2008

L25 317 S L24  
L26 STRUCTURE UPLOADED  
S L26

FILE 'REGISTRY' ENTERED AT 12:16:49 ON 22 AUG 2008

FILE 'CAPLUS' ENTERED AT 12:16:52 ON 22 AUG 2008

FILE 'REGISTRY' ENTERED AT 12:16:52 ON 22 AUG 2008

FILE 'CAPLUS' ENTERED AT 12:16:53 ON 22 AUG 2008

FILE 'REGISTRY' ENTERED AT 12:16:53 ON 22 AUG 2008

FILE 'CAPLUS' ENTERED AT 12:16:55 ON 22 AUG 2008

FILE 'REGISTRY' ENTERED AT 12:16:55 ON 22 AUG 2008  
L27 3 S L26 SUB=L17 SAM

FILE 'CAPLUS' ENTERED AT 12:16:58 ON 22 AUG 2008

FILE 'REGISTRY' ENTERED AT 12:17:04 ON 22 AUG 2008

10/573,517

L28            88 S L27   SUB=L17 FUL  
L29            902 S L17 NOT L28

FILE 'CAPLUS' ENTERED AT 12:17:42 ON 22 AUG 2008  
L30            316 S L29

FILE 'REGISTRY' ENTERED AT 12:18:23 ON 22 AUG 2008  
L31            STRUCTURE UPLOADED  
L32            810 S L31   SUB=L29 FUL

FILE 'CAPLUS' ENTERED AT 12:23:29 ON 22 AUG 2008  
L33            308 S L32

FILE 'REGISTRY' ENTERED AT 12:24:41 ON 22 AUG 2008  
L34            805 S L32 NOT (L19 OR L20 OR L21 OR L23)

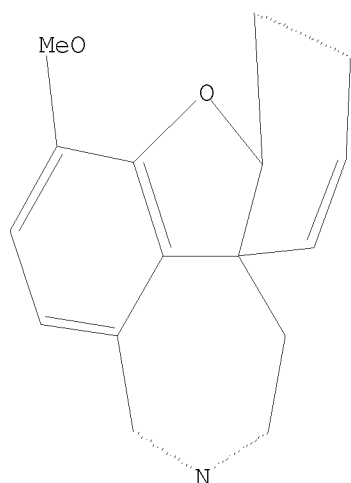
FILE 'CAPLUS' ENTERED AT 12:26:10 ON 22 AUG 2008  
L35            219 S L34  
L36            ANALYZE L35 1- RN HIT :        685 TERMS

FILE 'REGISTRY' ENTERED AT 12:26:58 ON 22 AUG 2008  
L37            100 S 109606?/RN  
L38            11050 S 5072?/RN  
L39            1093 S 53321?/RN  
L40            1043 S 14844?/RN  
L41            100 S 134332?/RN  
L42            100 S 156040?/RN  
L43            100 S 365571?/RN  
L44            1 S L34 AND L37  
L45            1 S L34 AND L38  
L46            1 S L34 AND L39  
L47            4 S L34 AND L40  
L48            1 S L34 AND L41  
L49            1 S L34 AND L42  
L50            56 S L34 AND L43  
L51            799 S L34 NOT (L44 OR L47 OR L48)  
L52            796 S L51 NOT (L18 OR L22)

FILE 'CAPLUS' ENTERED AT 12:30:21 ON 22 AUG 2008  
L53            145 S L52  
L54            127 S L53 NOT (2008/SO OR 2007/SO OR 2006/SO OR 2005/SO)  
L55            1483 S L9  
L56            68 S L18  
L57            22 S L22  
L58            89 S L54 AND L55  
L59            20 S L54 AND L56  
L60            7 S L54 AND L57  
L61            127 S L54 OR L58 OR L59 OR L60

=> d 12  
L2 HAS NO ANSWERS  
L2            STR

10/573,517

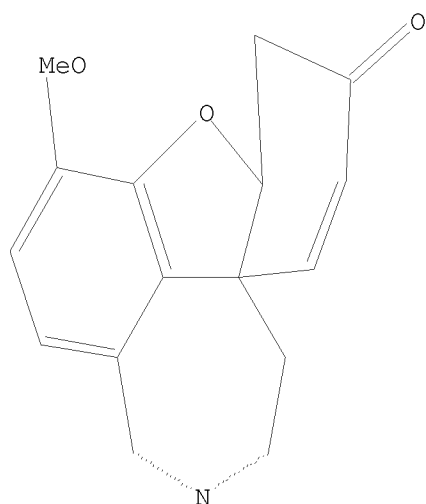


Structure attributes must be viewed using STN Express query preparation.

=> d 126

L26 HAS NO ANSWERS

L26 STR



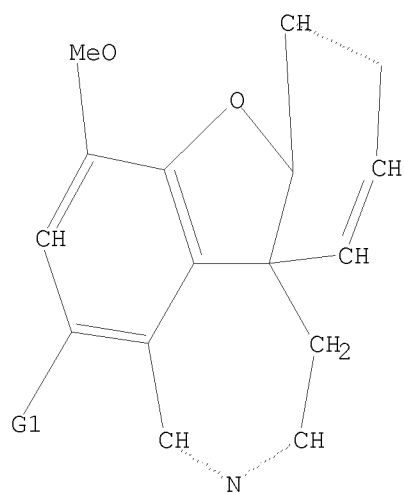
Structure attributes must be viewed using STN Express query preparation.

=> d 131

L31 HAS NO ANSWERS

L31 STR

10/573,517



G1 H, NH<sub>2</sub>, NO<sub>2</sub>, X

Structure attributes must be viewed using STN Express query preparation.

=> d ibib abs hitstr total 161



L61 ANSWER 1 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:256090 CAPLUS

DOCUMENT NUMBER: 148:301344

TITLE: Compositions for influencing the effects of organophosphorus compounds and use of galanthamine, its derivatives and analogues for producing such compositions

INVENTOR(S): Frantsits, Werner

PATENT ASSIGNEE(S): Sanochemia Ltd., Malta

SOURCE: PCT Int. Appl., 171pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008022365	A2	20080228	WO 2007-AT404	20070823
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: AT 2006-1417 A 20060824

OTHER SOURCE(S): MARPAT 148:301344

AB The use of galanthamine of the formula and derivs. or analogs of galanthamine for controlling the effect of toxic organic phosphorus compds. such as parathion, paraoxon, sarin, soman or tabun is described, wherein a composition comprising the said compound or a combination of at least two of the

said compds. is administered before and/or after contact of a human with the toxic organic phosphorus compound

IT 112448-56-3 146475-70-9 179107-98-3  
 180854-29-9 198987-85-8 198987-87-0  
 198987-92-7 198987-93-8 198987-94-9  
 198987-95-0 198987-96-1 198988-12-4  
 198988-13-5 198988-14-6 198988-16-8  
 198988-20-4 198988-23-7 198988-26-0  
 198988-28-2 198988-56-6 199014-25-0  
 365570-84-9 365571-15-9 365571-21-7  
 365571-23-9 365571-32-0 365571-34-2  
 365571-54-6 365571-57-9 365571-58-0  
 365571-59-1 365571-60-4 365571-61-5  
 365571-62-6 365571-63-7 365571-64-8  
 365571-65-9 365571-66-0 365571-67-1  
 365571-68-2 365571-71-7 365571-72-8  
 365571-73-9 365571-74-0 365571-75-1  
 365571-76-2 365571-77-3 365571-79-5  
 365571-81-9 365571-83-1 365571-90-0

10/573,517

365571-94-4 365571-95-5 365574-25-0  
366485-18-9 849355-36-8 1008759-83-8  
1008759-84-9 1008759-87-2D, derivs. 1008759-89-4  
1008759-91-8 1008759-97-4 1008759-98-5  
1008760-05-1 1008760-06-2 1008760-08-4  
1008760-09-5 1008760-10-8 1008760-47-1  
1008760-66-4 1009361-03-8

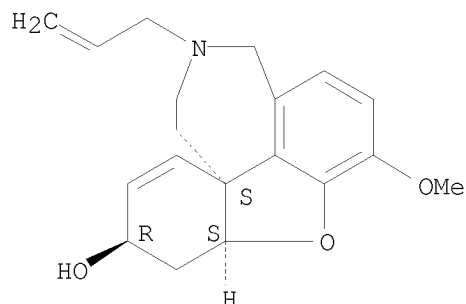
RL: PAC (Pharmacological activity); PRPH (Prophetic); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(comps. for influencing effects of organophosphorus compds. and use of galanthamine, its derivs. and analogs for producing such compns.)

RN 112448-56-3 CAPLUS

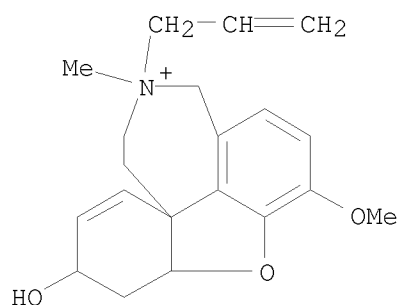
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propen-1-yl)-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 146475-70-9 CAPLUS

CN Galanthaminium, 10-(2-propen-1-yl)-, bromide (1:1) (CA INDEX NAME)



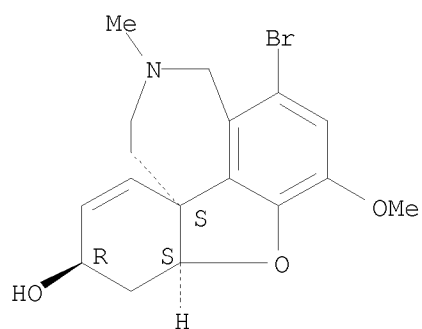
● Br<sup>-</sup>

RN 179107-98-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

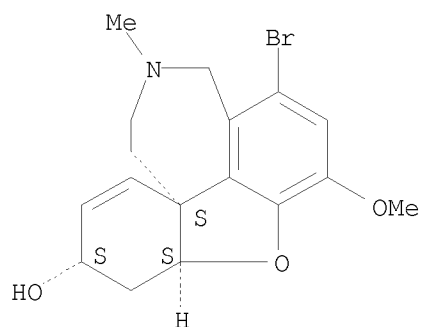
10/573,517



RN 180854-29-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6R,8aR)-rel- (9CI) (CA INDEX NAME)

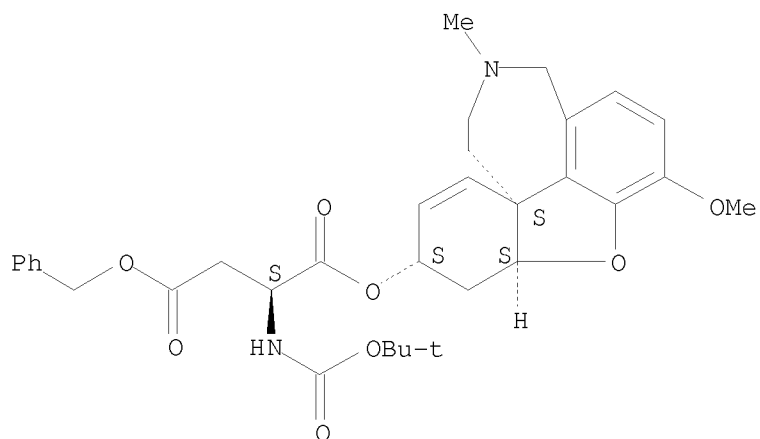
Relative stereochemistry.



RN 198987-85-8 CAPLUS

CN L-Aspartic acid, N-[(1,1-dimethylethoxy)carbonyl]-, 1-[(4aS,6S,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] 4-(phenylmethyl) ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

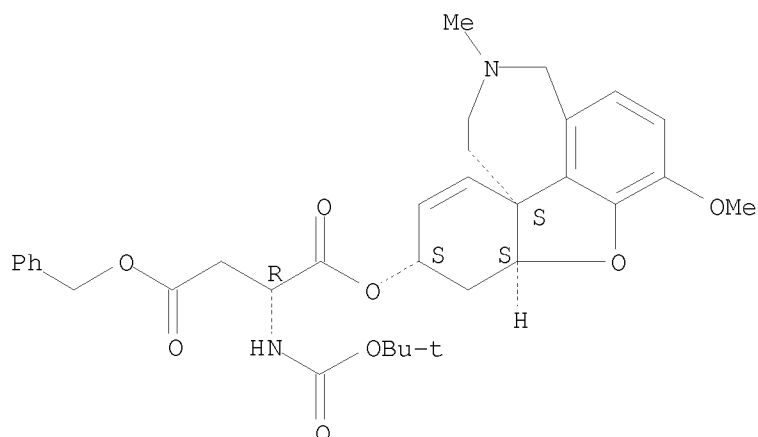


RN 198987-87-0 CAPLUS

10/573,517

CN D-Aspartic acid, N-[(1,1-dimethylethoxy)carbonyl]-, 1-[(4aS,6S,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] 4-(phenylmethyl) ester (CA INDEX NAME)

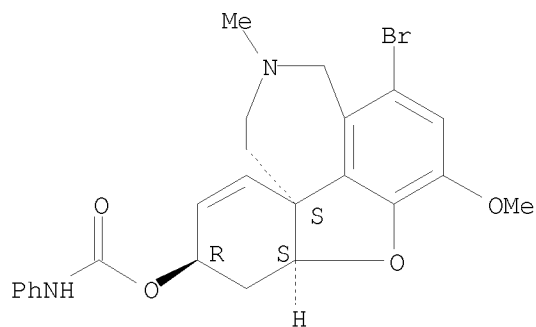
Absolute stereochemistry. Rotation (-).



RN 198987-92-7 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 5-bromo-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 10-N-phenylcarbamic acidazocarbamic acidamide, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

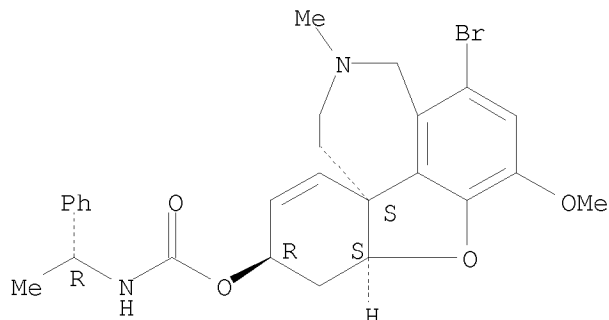


RN 198987-93-8 CAPLUS

CN Carbamic acid, (1-phenylethyl)-, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, [4a $\alpha$ ,6 $\beta$ (S\*),8aR\*]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

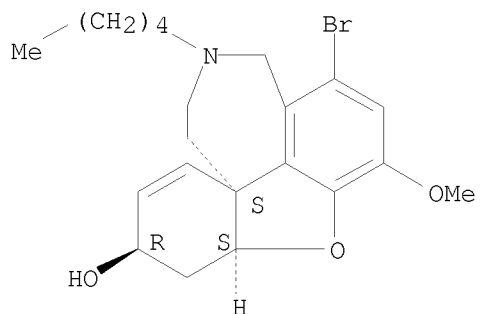
10/573,517



RN 198987-94-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-yl, 5-bromo-1,2,3,4,8a,9-hexahydro-7-methoxy-3-pentyl-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

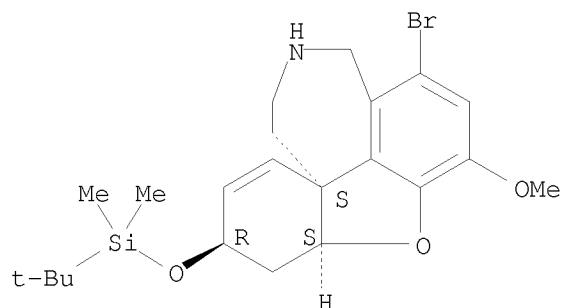
Relative stereochemistry.



RN 198987-95-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 1-bromo-6-[[ (1,1-dimethylethyl)dimethylsilyl]oxy]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

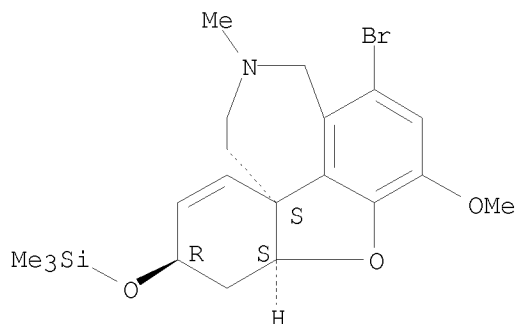


RN 198987-96-1 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine, 5-bromo-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10-[(trimethylsilyl)oxy]-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

10/573,517

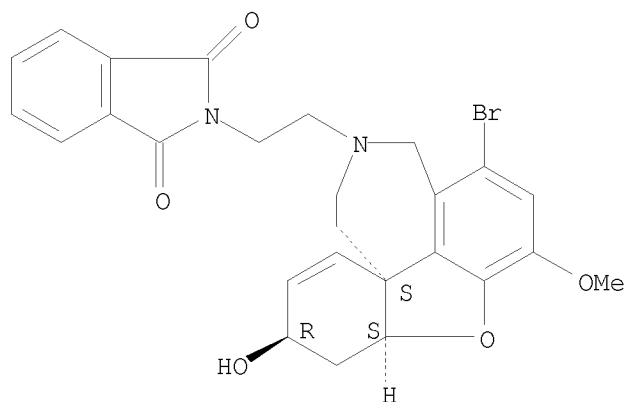
Relative stereochemistry.



RN 198988-12-4 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[(4aR,7S,8aR)-12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]ethyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

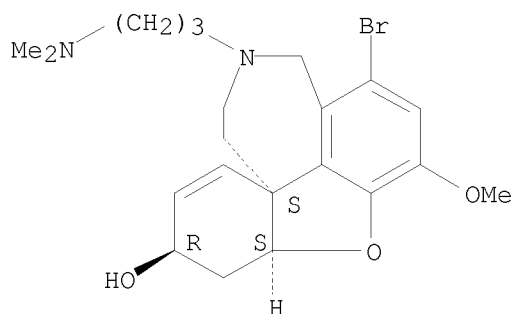


RN 198988-13-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-11-[3-(dimethylamino)propyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

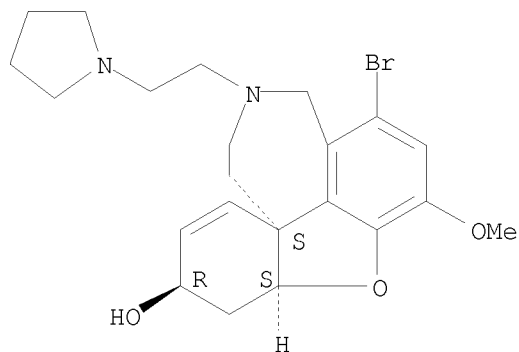
10/573,517



RN 198988-14-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-(1-pyrrolidinyl)ethyl]-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

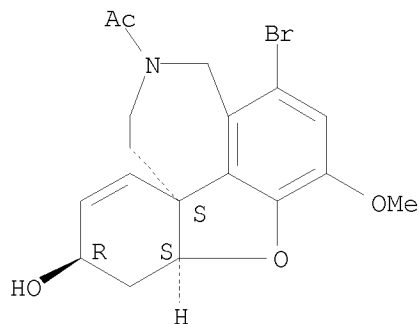
Relative stereochemistry.



RN 198988-16-8 CAPLUS

CN Ethanone, 1-[(4aR,6S,8aR)-1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



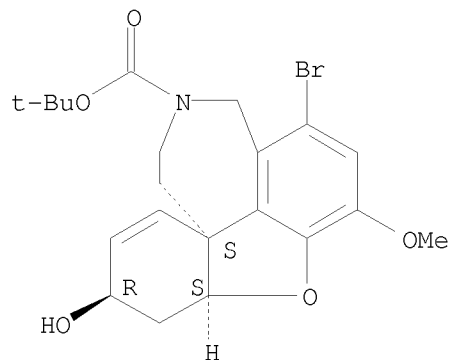
RN 198988-20-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxylic acid, 5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, 1,1-dimethylethyl

10/573,517

ester, (8aR,10S,12aR)-rel- (CA INDEX NAME)

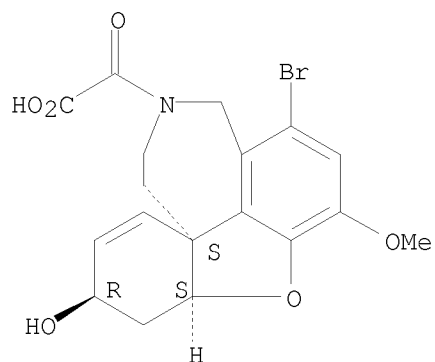
Relative stereochemistry.



RN 198988-23-7 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-acetic acid,  
5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy- $\alpha$ -oxo-,  
(8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



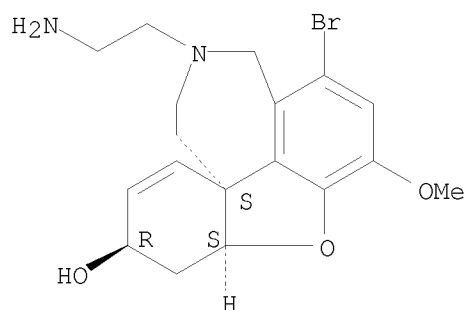
RN 198988-26-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(2-aminoethyl)-1-bromo-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



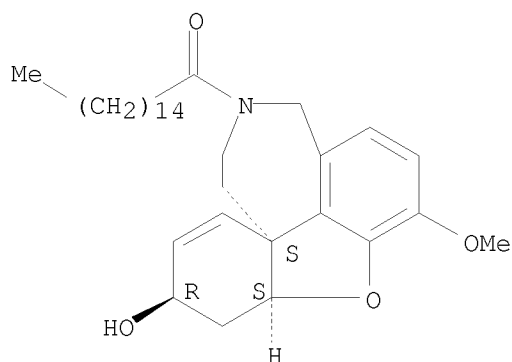
10/573,517



RN 198988-28-2 CAPLUS

CN 1-Hexadecanone, 1-[(8aR,10S,12aR)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

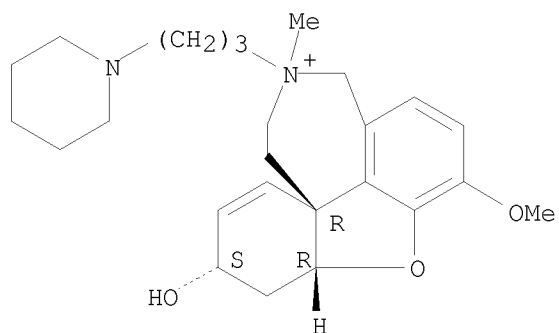


RN 198988-56-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[3-(1-piperidiny)propyl]-, chloride (1:1), (4aR,6S,8aR)- (CA INDEX NAME)

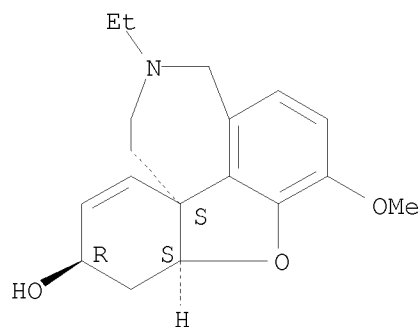
Absolute stereochemistry.

10/573,517



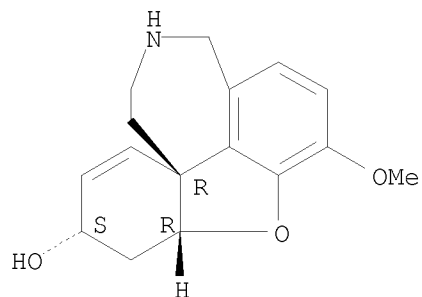
RN 199014-25-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-ethyl-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 365570-84-9 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)- (CA INDEX NAME)

Absolute stereochemistry.

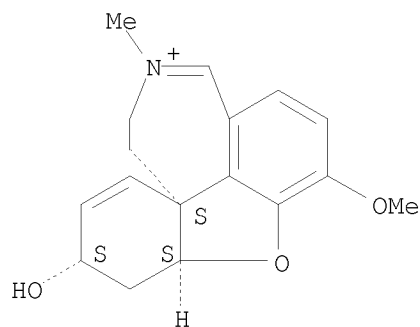


10/573,517

RN 365571-15-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aS,6S,8aS)- (CA INDEX NAME)

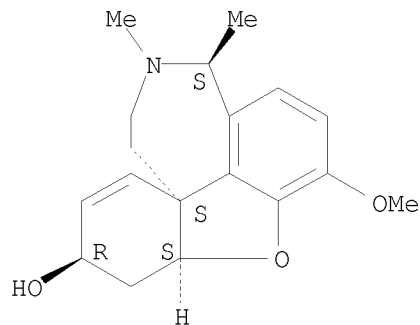
Absolute stereochemistry.



RN 365571-21-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11,12-dimethyl-, (4aS,6R,8aS,12S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

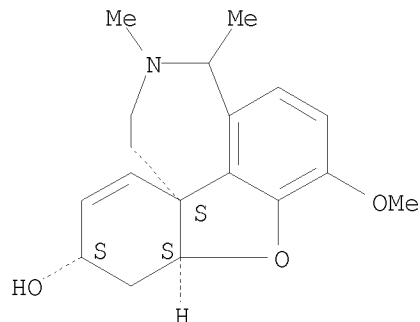


RN 365571-23-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11,12-dimethyl-, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

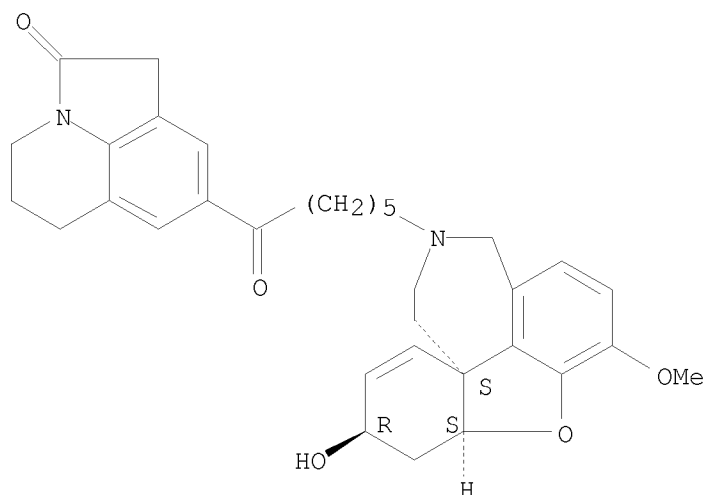
10/573,517



RN 365571-32-0 CAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-2(1H)-one, 5,6-dihydro-8-[1-oxo-6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]- (CA INDEX NAME)

Absolute stereochemistry.

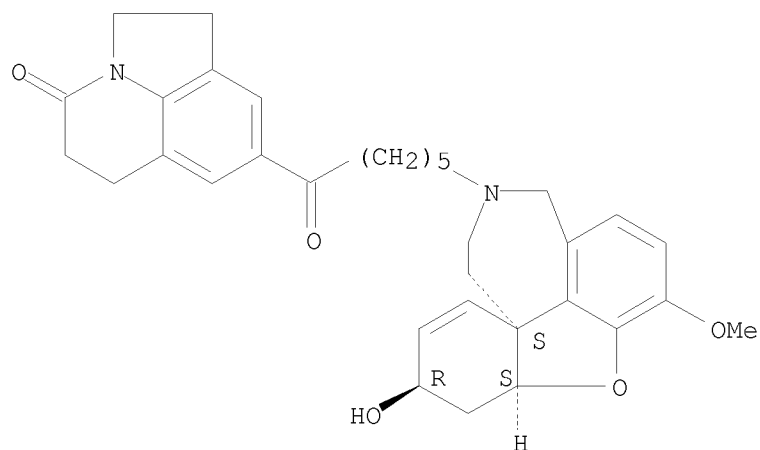


RN 365571-34-2 CAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-4-one, 1,2,5,6-tetrahydro-8-[1-oxo-6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]- (CA INDEX NAME)

Absolute stereochemistry.

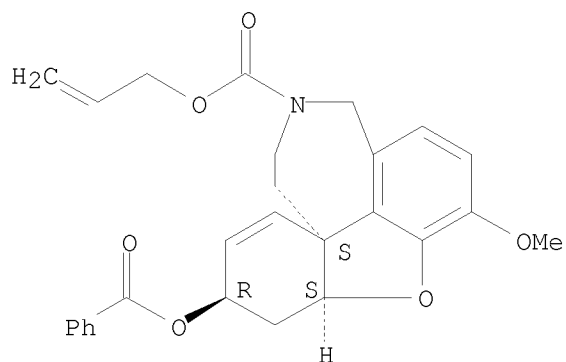
10/573,517



RN 365571-54-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxylic acid,  
10-(benzoyloxy)-1,2,8a,9-tetrahydro-7-methoxy-, 2-propen-1-yl ester,  
(8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

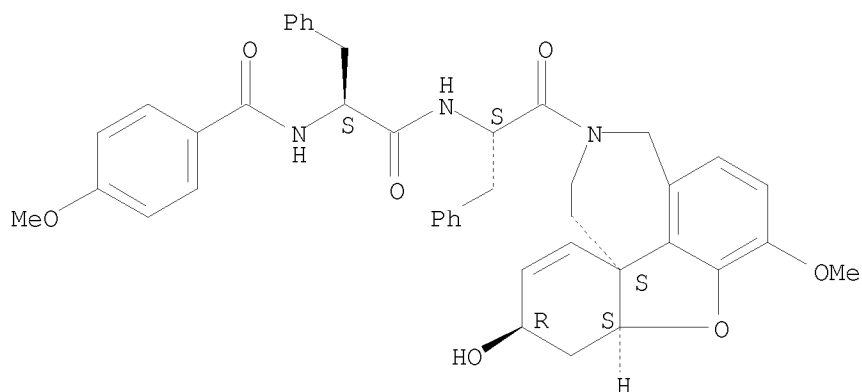


RN 365571-57-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-[N-(4-methoxybenzoyl)-L-phenylalanyl-L-phenylalanyl]-,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

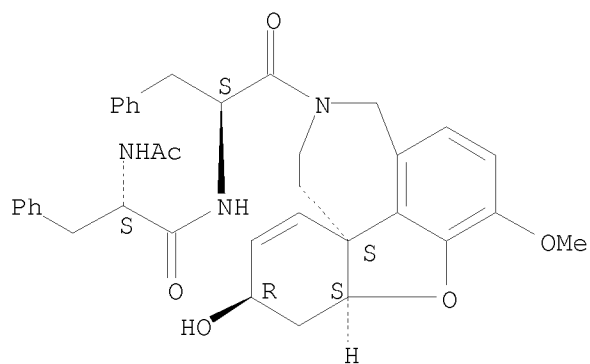
10/573,517



RN 365571-58-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(N-acetyl-L-phenylalanyl-L-phenylalanyl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

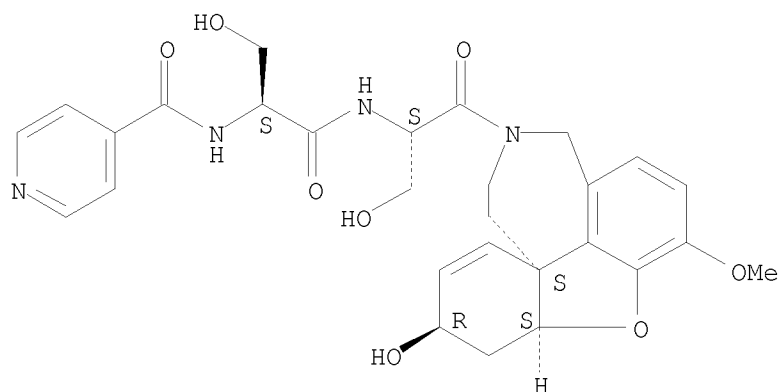


RN 365571-59-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[N-(4-pyridinylcarbonyl)-L-seryl-L-seryl]-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

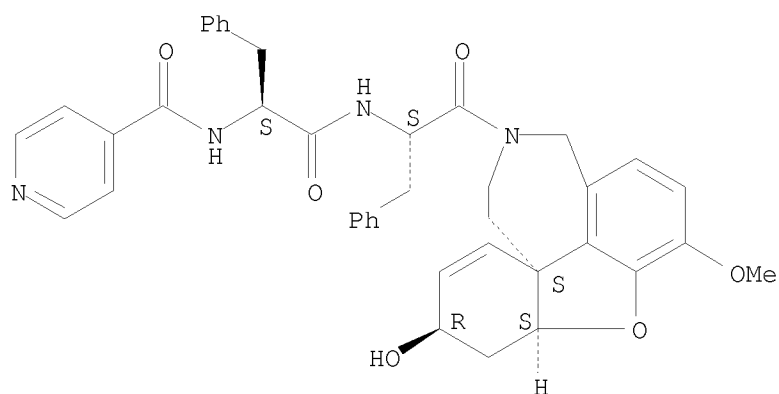
10/573,517



RN 365571-60-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[N-(4-pyridinylcarbonyl)-L-phenylalanyl-L-phenylalanyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

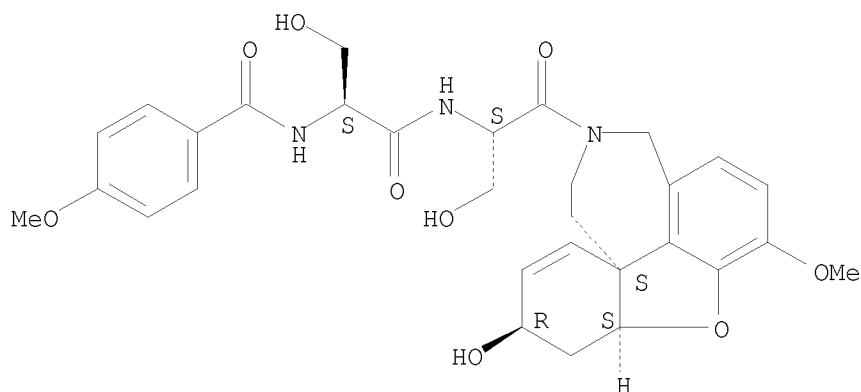


RN 365571-61-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[N-(4-methoxybenzoyl)-L-seryl-L-seryl]-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

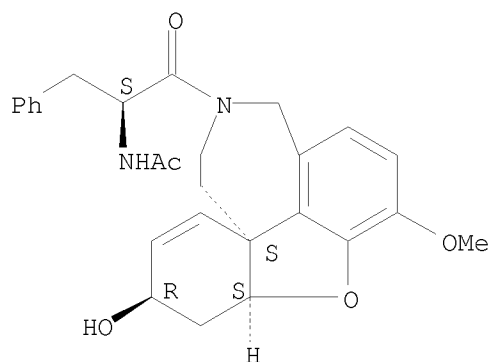
10/573,517



RN 365571-62-6 CAPLUS

CN Acetamide, N-[(1S)-2-oxo-1-(phenylmethyl)-2-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]ethyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



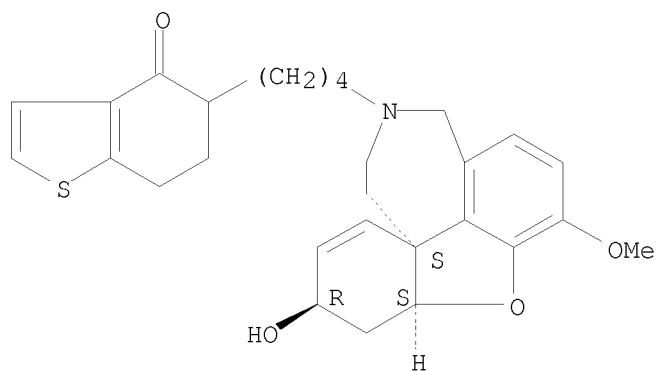
RN 365571-63-7 CAPLUS

CN Benzo[b]thiophen-4(5H)-one, 6,7-dihydro-5-[4-[(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.



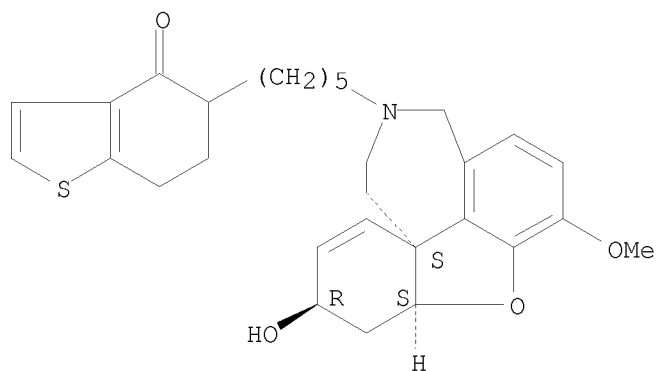
10/573,517



RN 365571-64-8 CAPLUS

CN Benzo[b]thiophen-4(5H)-one, 6,7-dihydro-5-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]- (CA INDEX NAME)

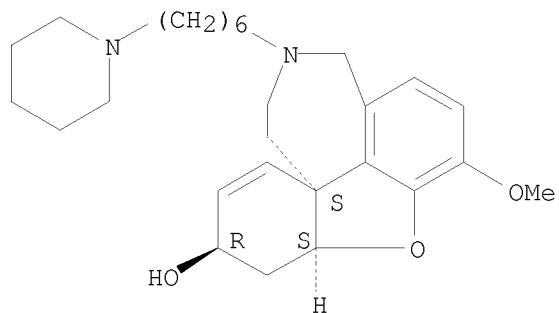
Absolute stereochemistry.



RN 365571-65-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[6-(1-piperidinyl)hexyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

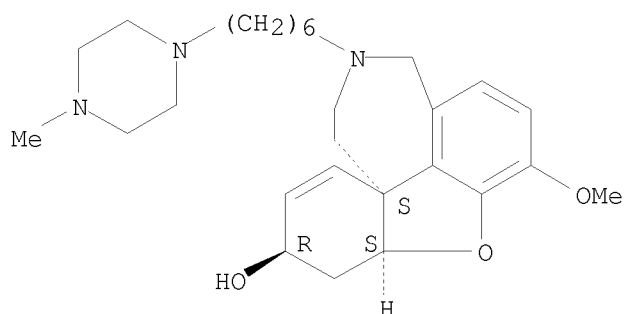
Absolute stereochemistry.



10/573,517

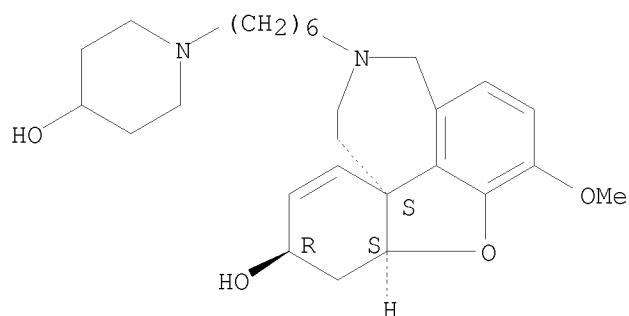
RN 365571-66-0 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-(4-methyl-1-piperazinyl)hexyl]-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 365571-67-1 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-3-[6-(4-hydroxy-1-piperidinyl)hexyl]-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

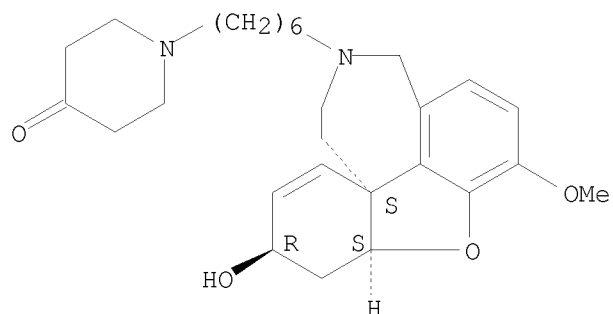
Absolute stereochemistry.



RN 365571-68-2 CAPLUS  
CN 4-Piperidinone, 1-[6-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]hexyl]- (CA INDEX NAME)

Absolute stereochemistry.

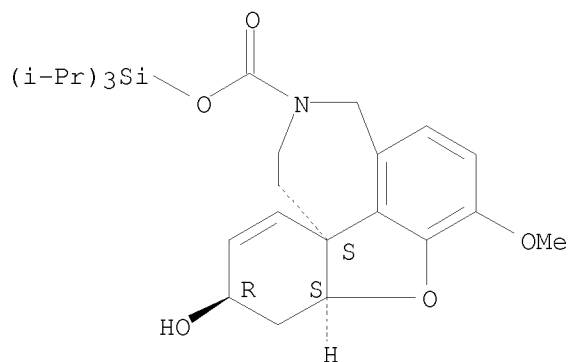
10/573,517



RN 365571-71-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, tris(1-methylethyl)silyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

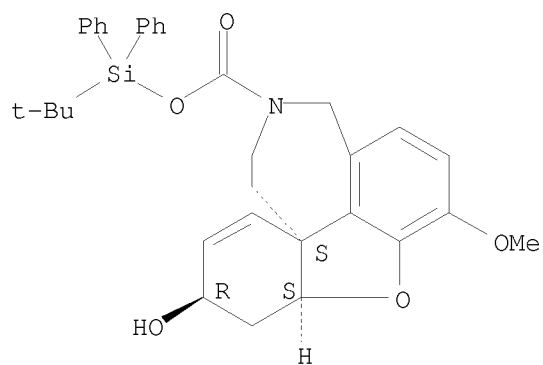
Absolute stereochemistry.



RN 365571-72-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxylic acid,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, (1,1-  
dimethylethyl)diphenylsilyl ester, (8aS,10R,12aS)- (CA INDEX NAME)

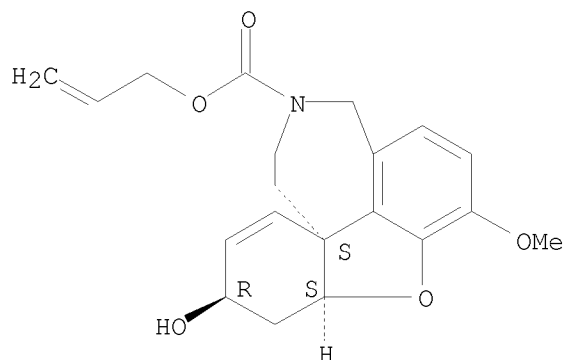
Absolute stereochemistry.



10/573,517

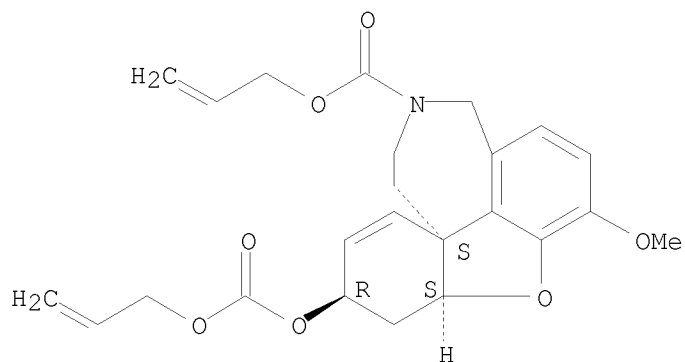
RN 365571-73-9 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxylic acid,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, 2-propen-1-yl ester,  
(8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 365571-74-0 CAPLUS  
CN 3H-Benzofuro[3a,3,2-ef][2]benzazepine-8(9H)-carboxylic acid,  
1a,2,6,7-tetrahydro-12-methoxy-3-[[ (2-propen-1-yloxy)carbonyl]oxy]-,  
2-propen-1-yl ester, (1aS,3R,5aS)- (CA INDEX NAME)

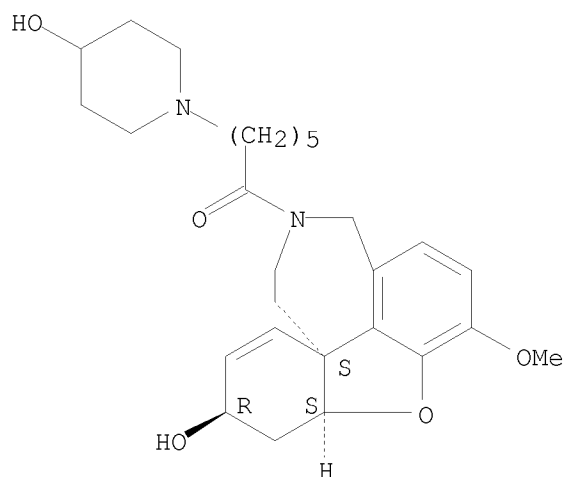
Absolute stereochemistry.



RN 365571-75-1 CAPLUS  
CN 1-Hexanone, 6-(4-hydroxy-1-piperidiny1)-1-[(8aS,10R,12aS)-1,2,8a,9-  
tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-  
3(4H)-yl]- (CA INDEX NAME)

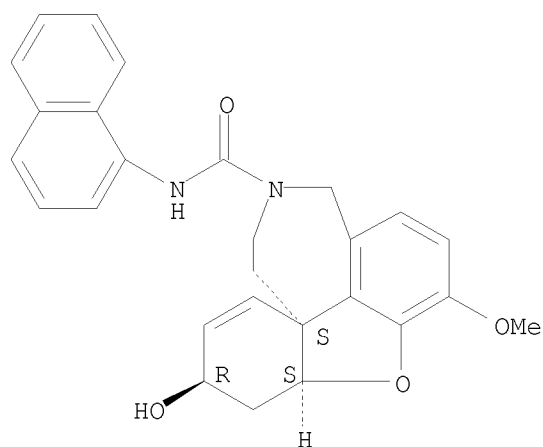
Absolute stereochemistry.

10/573,517



RN 365571-76-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-1-naphthalenyl-, (4aS,6R,8aS)-  
(CA INDEX NAME)

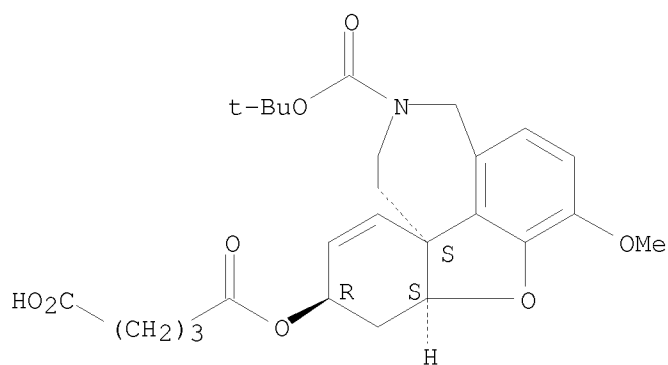
Absolute stereochemistry. Rotation (-).



RN 365571-77-3 CAPLUS  
CN Pentanedioic acid, 1-[(4aS,6R,8aS)-11-[(1,1-dimethylethoxy)carbonyl]-  
4a,5,9,10,11,12-hexahydro-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-  
yl] ester (CA INDEX NAME)

Absolute stereochemistry.

10/573,517

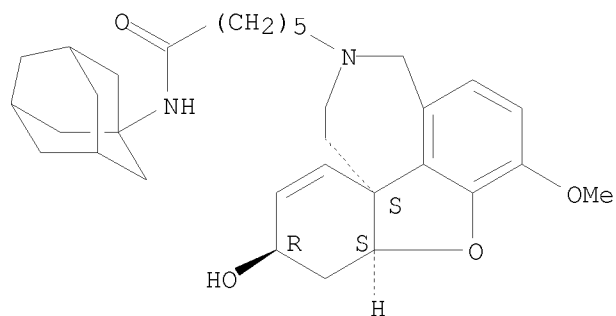


RN 365571-79-5 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-hexanamide,  
 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl-,  
 (4aS,6R,8aS)-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365571-78-4  
 CMF C32 H44 N2 O4

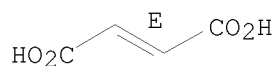
Absolute stereochemistry.



CM 2

CRN 110-17-8  
 CMF C4 H4 O4

Double bond geometry as shown.



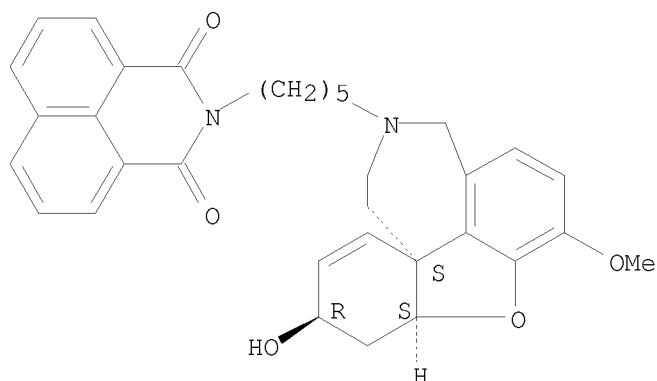
RN 365571-81-9 CAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[5-[(4aS,6R,8aS)-4a,5,9,10-  
 tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-  
 11(12H)-yl]pentyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

10/573,517

CM 1

CRN 365571-80-8  
CMF C33 H34 N2 O5

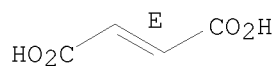
Absolute stereochemistry.



CM 2

CRN 110-17-8  
CMF C4 H4 O4

Double bond geometry as shown.



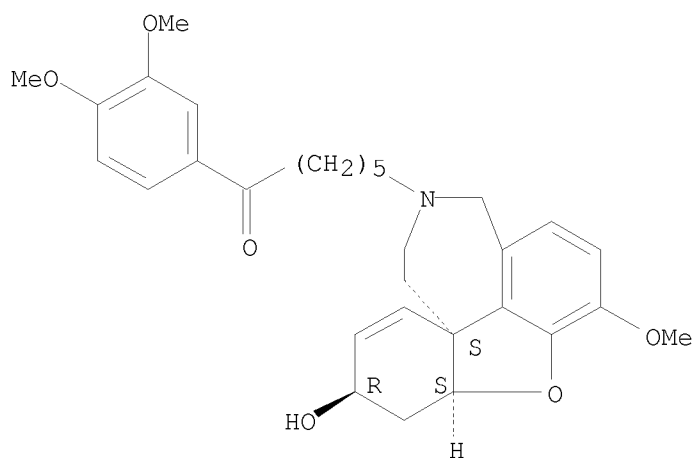
RN 365571-83-1 CAPLUS  
CN 1-Hexanone, 1-(3,4-dimethoxyphenyl)-6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365571-82-0  
CMF C30 H37 N O6

Absolute stereochemistry.

10/573,517

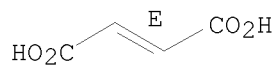


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 365571-90-0 CAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-2(1H)-one, 5,6-dihydro-8-[1-oxo-6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

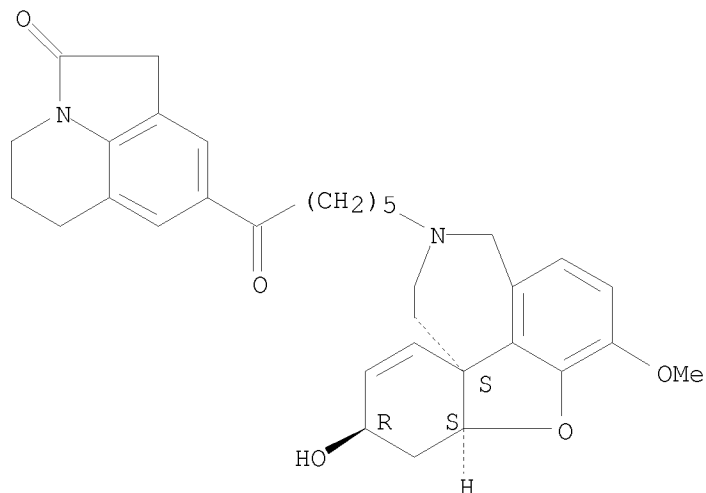
CRN 365571-32-0

CMF C33 H38 N2 O5

Absolute stereochemistry.



10/573,517

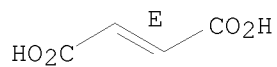


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 365571-94-4 CAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-4-one, 1,2,5,6-tetrahydro-8-[1-oxo-6-  
[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-  
ef][2]benzazepin-11(12H)-yl]hexyl]-, (2E)-2-butenedioate (1:1) (CA INDEX  
NAME)

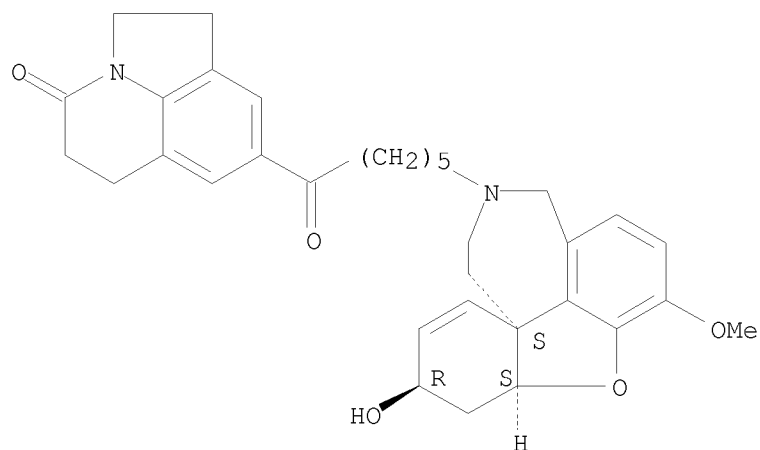
CM 1

CRN 365571-34-2

CMF C33 H38 N2 O5

Absolute stereochemistry.

10/573,517

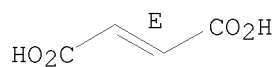


CM 2

CRN 110-17-8

CMF C4 H4 O4

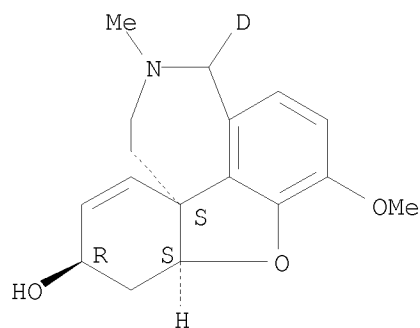
Double bond geometry as shown.



RN 365571-95-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-12-d-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

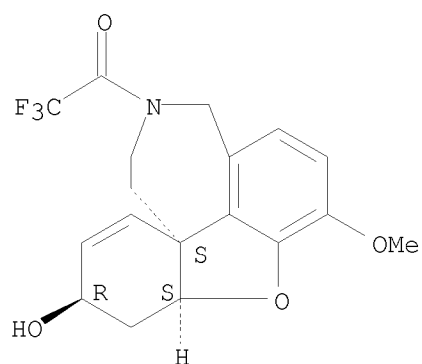


RN 365574-25-0 CAPLUS

CN Ethanone, 2,2,2-trifluoro-1-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

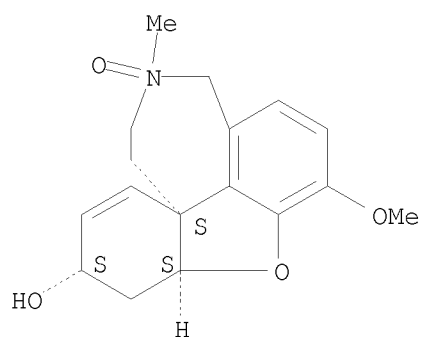
10/573,517



RN 366485-18-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 11-oxide, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

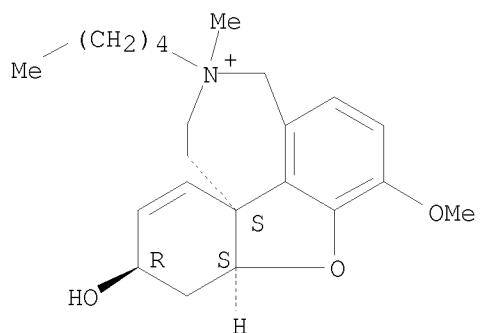


RN 849355-36-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-3-pentyl-, bromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

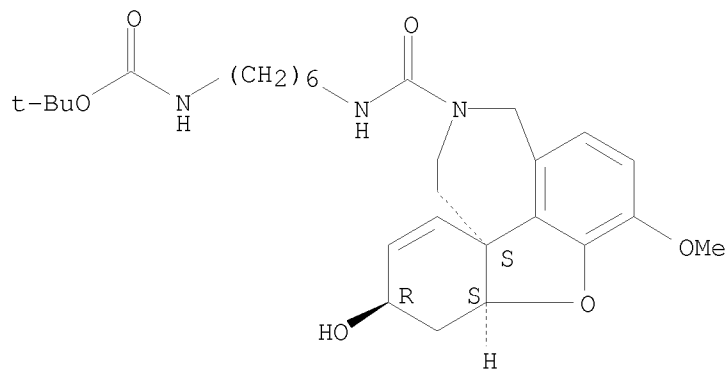
10/573,517



RN 1008759-83-8 CAPLUS

CN Carbamic acid, N-[6-[[[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]carbonyl]amino]hexyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

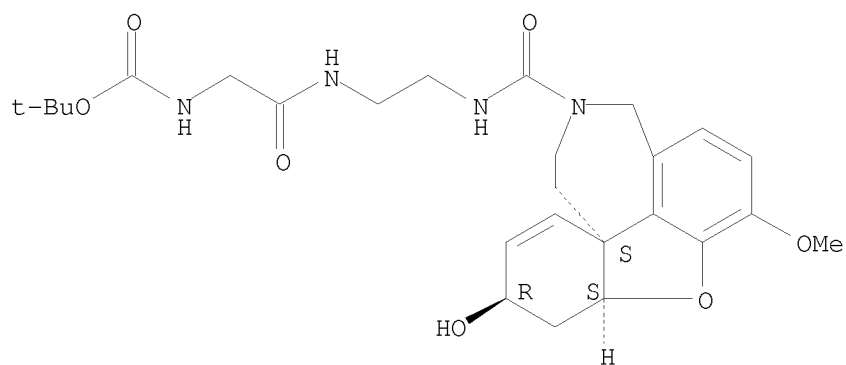


RN 1008759-84-9 CAPLUS

CN Carbamic acid, N-[2-oxo-2-[[2-[[[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]carbonyl]amino]ethyl]amino]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

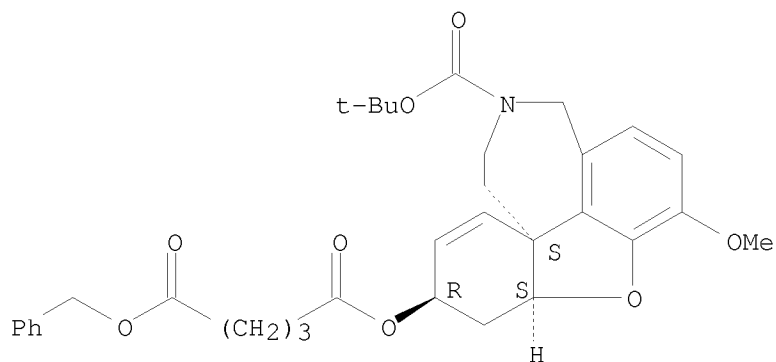
10/573,517



RN 1008759-87-2 CAPLUS

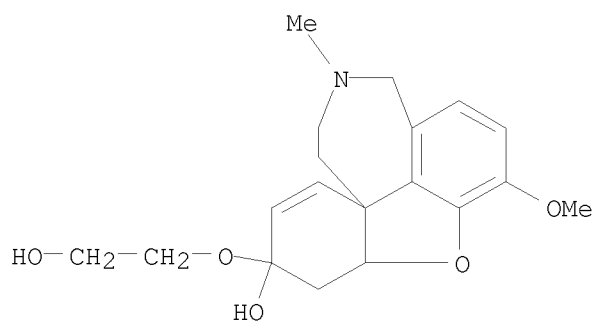
CN Pentanedioic acid, 1-[(1aS,3R,5aS)-8-[(1,1-dimethylethoxy)carbonyl]-1a,2,6,7,8,9-hexahydro-12-methoxy-3H-benzofuro[3a,3,2-ef][2]benzazepin-3-yl] 5-(phenylmethyl) ester (CA INDEX NAME)

Absolute stereochemistry.



RN 1008759-89-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-10-(2-hydroxyethoxy)-7-methoxy-3-methyl- (CA INDEX NAME)

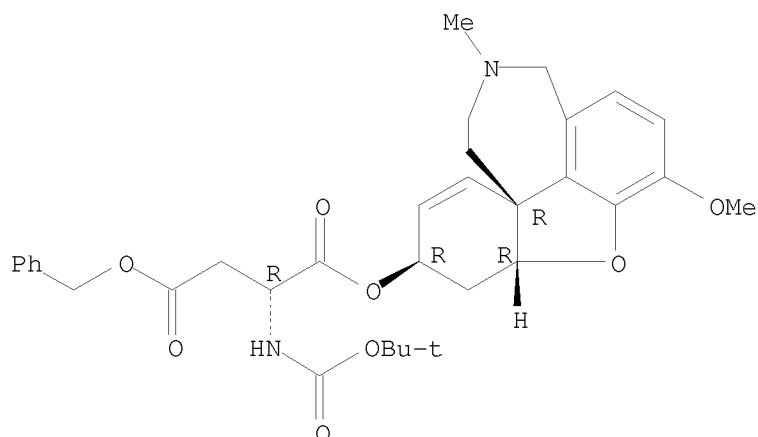


RN 1008759-91-8 CAPLUS

10/573,517

CN D-Aspartic acid, N-[(1,1-dimethylethoxy)carbonyl]-, 1-[(8aR,10R,12aR)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl] 4-(phenylmethyl) ester (CA INDEX NAME)

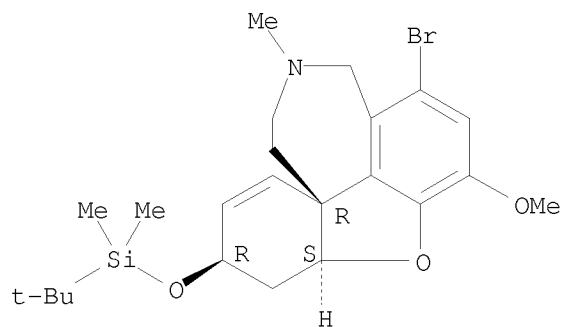
Absolute stereochemistry. Rotation (+).



RN 1008759-97-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 1-bromo-6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

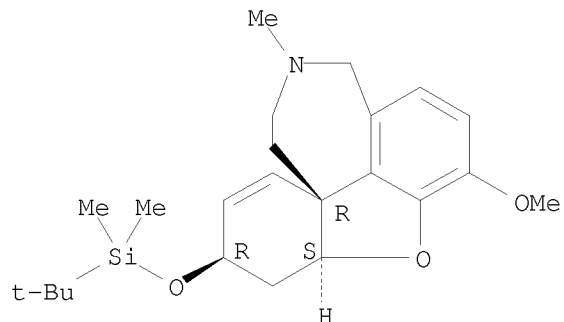


RN 1008759-98-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aR)- (CA INDEX NAME)

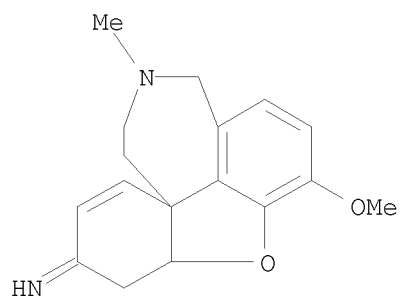
Absolute stereochemistry. Rotation (-).

10/573,517



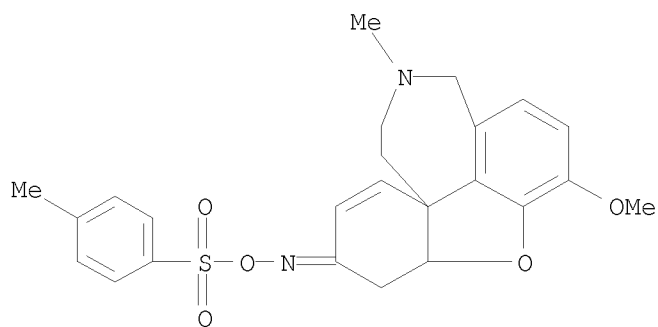
RN 1008760-05-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-imine, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl- (CA INDEX NAME)



RN 1008760-06-2 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, O-[(4-methylphenyl)sulfonyl]oxime (CA INDEX NAME)

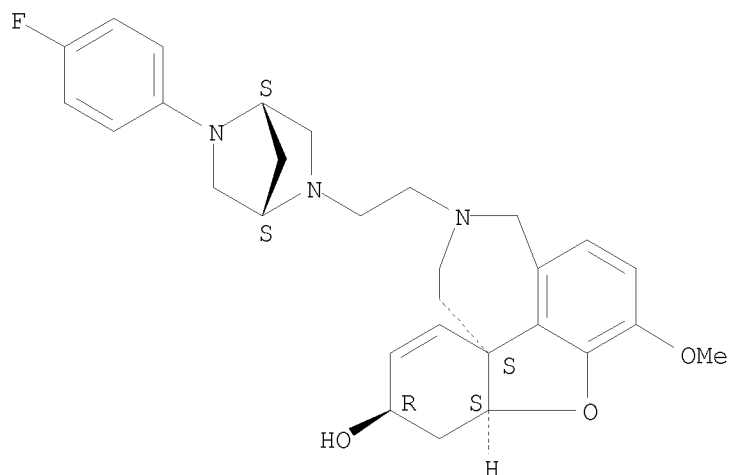


RN 1008760-08-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[2-[(1S,4S)-5-(4-fluorophenyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]ethyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

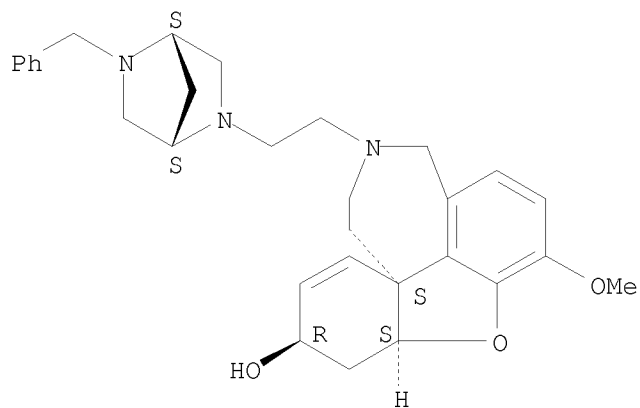
10/573,517



RN 1008760-09-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-[(1S,4S)-5-(phenylmethyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]ethyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

Relative stereochemistry.



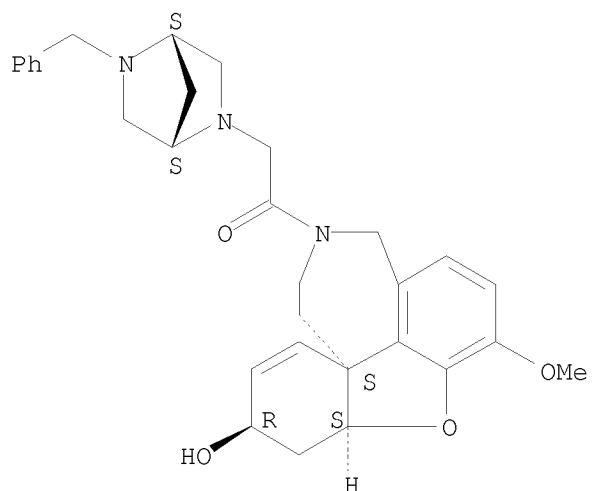
RN 1008760-10-8 CAPLUS

CN Ethanone, 2-[(1S,4S)-5-(phenylmethyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]-1-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

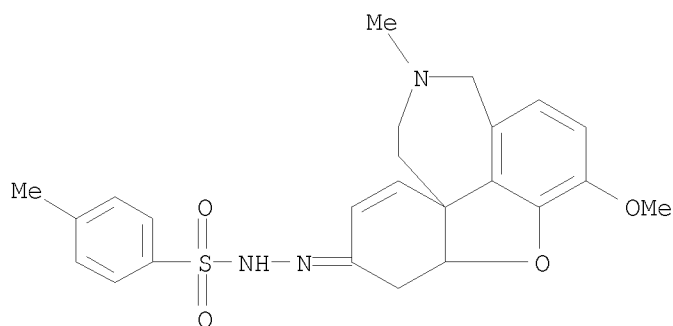
Relative stereochemistry.



10/573,517

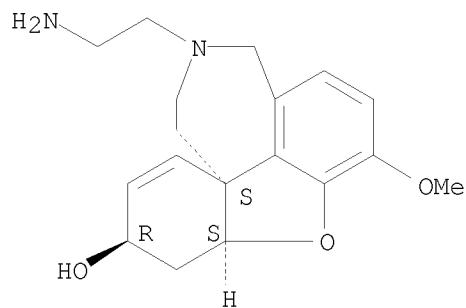


RN 1008760-47-1 CAPLUS  
 CN Benzenesulfonic acid, 4-methyl-, 2-(1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-ylidene)hydrazide (CA INDEX NAME)



RN 1008760-66-4 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(2-aminoethyl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (6R)- (CA INDEX NAME)

Relative stereochemistry.

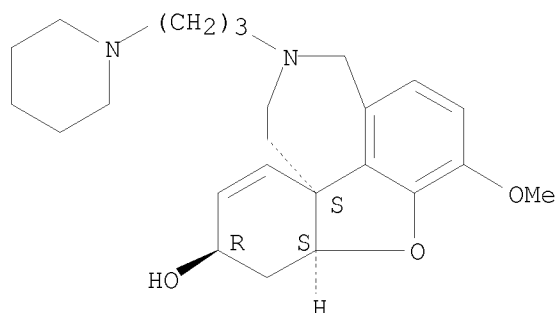


10/573,517

RN 1009361-03-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, hydrochloride (1:2), (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



● 2 HCl

IT 41303-52-0 41303-74-6 156040-03-8  
179107-99-4 183626-04-2 198987-71-2  
198987-76-7 198987-78-9 198987-80-3  
198987-81-4 198987-82-5 198987-83-6  
198988-00-0 198988-02-2 198988-03-3  
198988-06-6 198988-07-7 198988-08-8  
198988-09-9 198988-10-2 198988-11-3  
198988-15-7 198988-17-9 198988-21-5  
198988-24-8 198988-25-9 198988-29-3  
198988-30-6 198988-48-6 198988-49-7  
198988-52-2 198988-54-4 198988-55-5  
198988-57-7 198988-58-8 198988-63-5  
198988-73-7 198988-74-8 199014-24-9  
365570-18-9 365570-19-0 365570-21-4  
365570-23-6 365570-24-7 365570-25-8  
365570-26-9 365570-54-3 365570-56-5  
365570-62-3 365570-63-4 365570-64-5  
365570-65-6 365570-66-7 365570-67-8  
365570-68-9 365570-69-0 365570-70-3  
365570-71-4 365570-72-5 365570-73-6  
365570-74-7 365570-75-8 365570-79-2  
365570-80-5 365570-81-6 365570-85-0  
365570-87-2 365571-13-7 365571-16-0  
365571-36-4 365571-37-5 365571-39-7  
365571-40-0 365571-44-4 365571-47-7  
365571-49-9 365571-50-2 365571-69-3  
365571-70-6 365571-86-4 366485-20-3  
849232-34-4 849232-39-9 849232-43-5  
849232-44-6 849232-64-0 849232-91-3  
849232-97-9 849232-98-0 849232-99-1  
849233-00-7 849355-37-9 849355-38-0  
849355-39-1 849355-41-5 849355-42-6

849370-83-8 849370-85-0 849370-88-3  
 849370-96-3 849371-01-3 849371-03-5  
 849371-09-1 849371-10-4 849371-11-5  
 849371-12-6 849371-13-7 849439-75-4  
 849439-76-5 849460-82-8 1008759-15-6  
 1008759-16-7 1008759-17-8 1008759-25-8  
 1008759-26-9 1008759-27-0 1008759-30-5  
 1008759-34-9 1008759-38-3 1008759-41-8  
 1008759-42-9 1008759-43-0 1008759-44-1  
 1008759-45-2 1008759-46-3 1008759-47-4  
 1008759-48-5 1008759-49-6 1008759-50-9  
 1008759-51-0 1008759-54-3 1008759-57-6  
 1008759-58-7 1008759-60-1 1008759-62-3  
 1008759-63-4 1008759-64-5 1008759-65-6  
 1008759-67-8 1008759-69-0 1008759-72-5  
 1008759-73-6 1008759-76-9 1008759-78-1  
 1008759-79-2 1008759-80-5 1008759-88-3  
 1008759-90-7 1008760-07-3 1008760-67-5  
 1008760-72-2 1009360-94-4 1009360-95-5  
 1009360-96-6 1009360-99-9

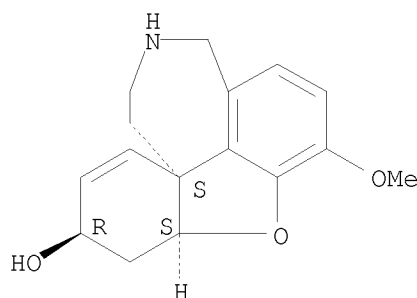
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)

(compns. for influencing effects of organophosphorus compds. and use of  
 galanthamine, its derivs. and analogs for producing such compns.)

RN 41303-52-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
 methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

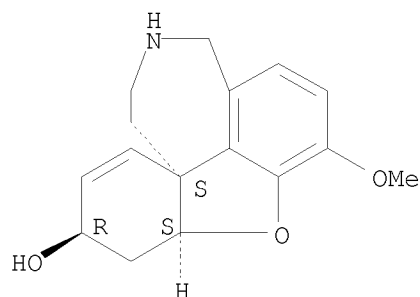


RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-  
 methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

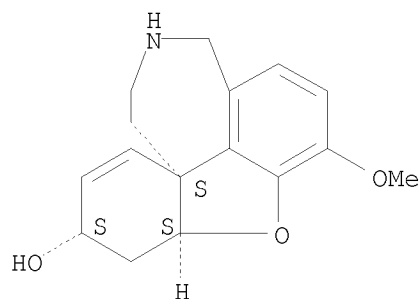
10/573,517



RN 156040-03-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10S,12aS)- (CA INDEX NAME)

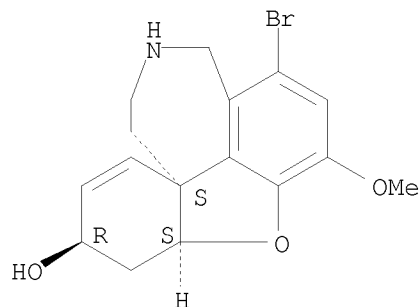
Absolute stereochemistry. Rotation (-).



RN 179107-99-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

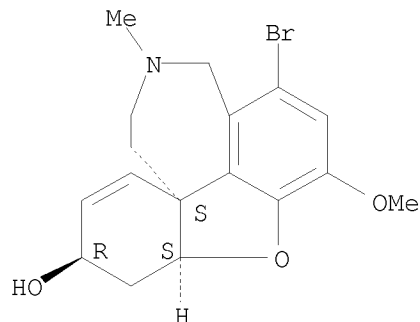


RN 183626-04-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

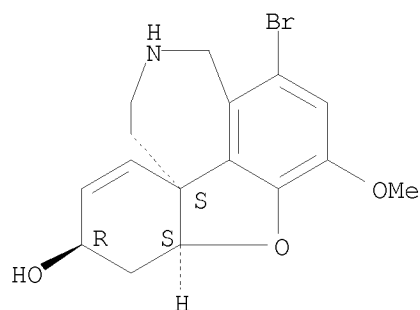
10/573,517



RN 198987-71-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

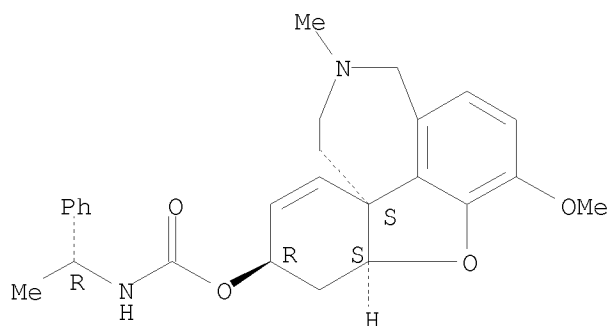
Absolute stereochemistry. Rotation (-).



RN 198987-76-7 CAPLUS

CN Carbamic acid, N-[(1R)-1-phenylethyl]-, (8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

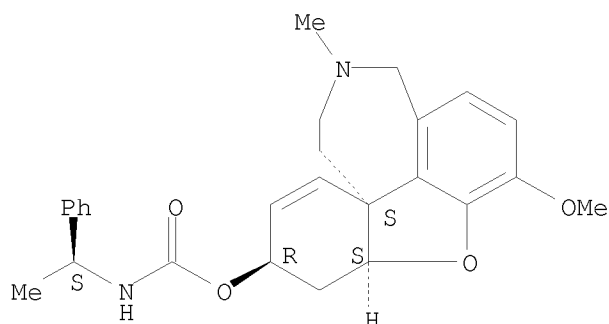


RN 198987-78-9 CAPLUS

CN Carbamic acid, N-[(1S)-1-phenylethyl]-, (8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester (CA INDEX NAME)

10/573,517

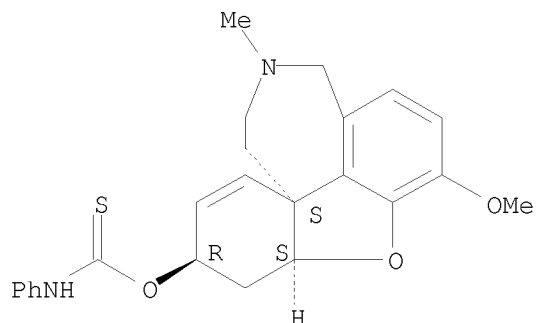
Absolute stereochemistry. Rotation (-).



RN 198987-80-3 CAPLUS

CN Carbamothioic acid, N-phenyl-, O-[(8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl] ester (CA INDEX NAME)

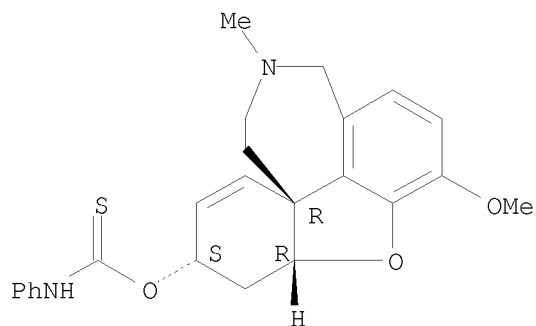
Absolute stereochemistry. Rotation (-).



RN 198987-81-4 CAPLUS

CN Carbamothioic acid, N-phenyl-, O-[(8aR,10S,12aR)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl] ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

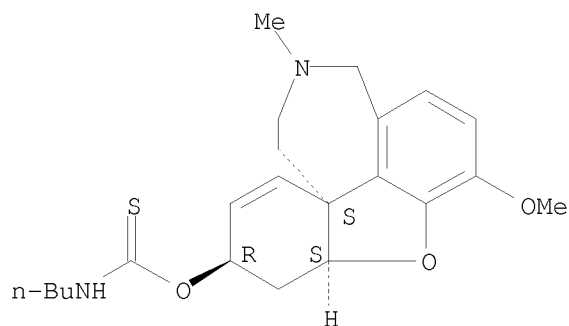


RN 198987-82-5 CAPLUS

10/573,517

CN Carbamothioic acid, N-butyl-, O-[(4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

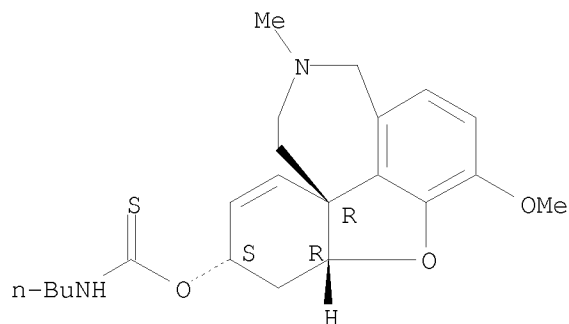
Absolute stereochemistry. Rotation (-).



RN 198987-83-6 CAPLUS

CN Carbamothioic acid, N-butyl-, O-[(4aR,6S,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

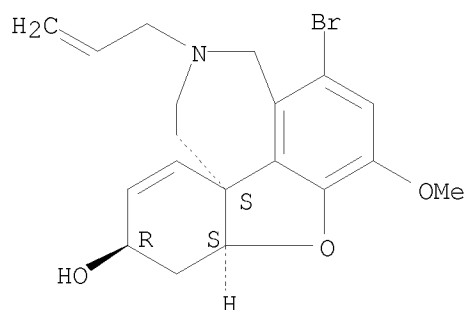


RN 198988-00-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propen-1-yl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

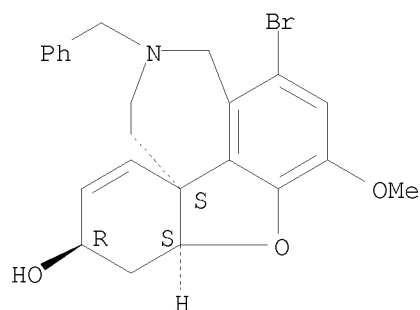
10/573,517



RN 198988-02-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-(phenylmethyl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

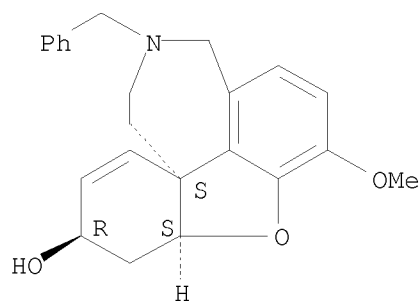
Relative stereochemistry.



RN 198988-03-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(phenylmethyl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



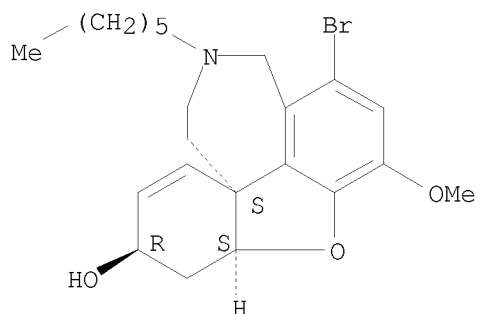
RN 198988-06-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-11-hexyl-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



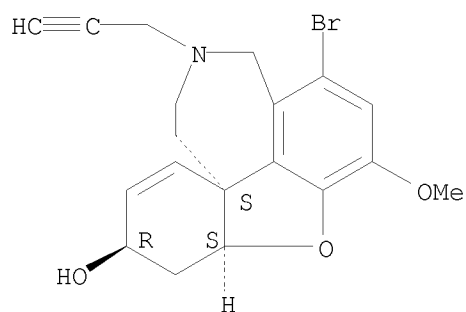
10/573,517



RN 198988-07-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propyn-1-yl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

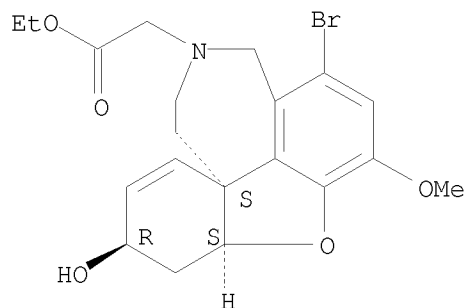
Relative stereochemistry.



RN 198988-08-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetic acid, 1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, ethyl ester, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



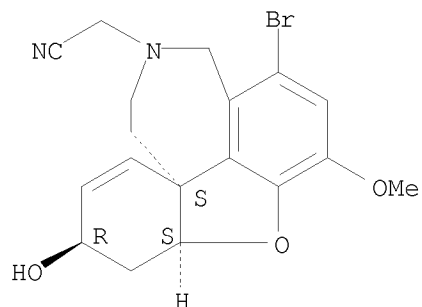
RN 198988-09-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetonitrile, 1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

10/573,517

INDEX NAME)

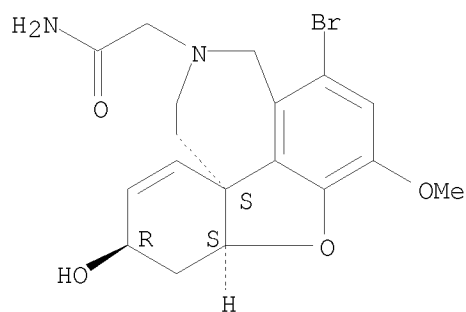
Relative stereochemistry.



RN 198988-10-2 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-acetamide,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aR,7S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.

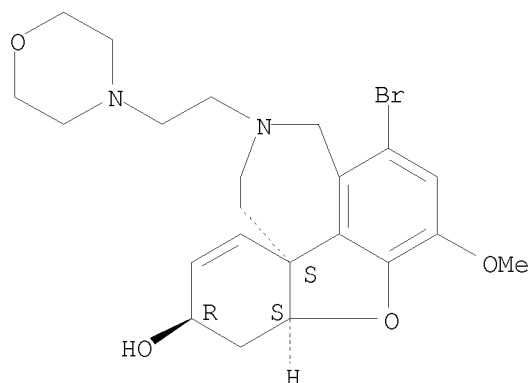


RN 198988-11-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-  
hexahydro-3-methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aR,6S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.

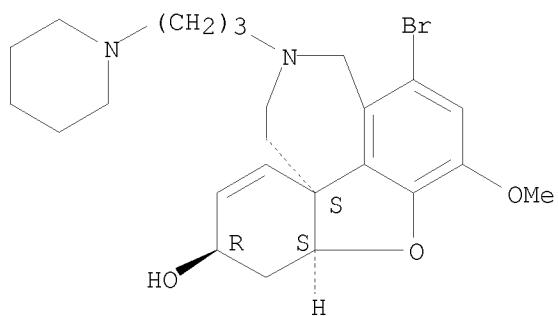
10/573,517



RN 198988-15-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

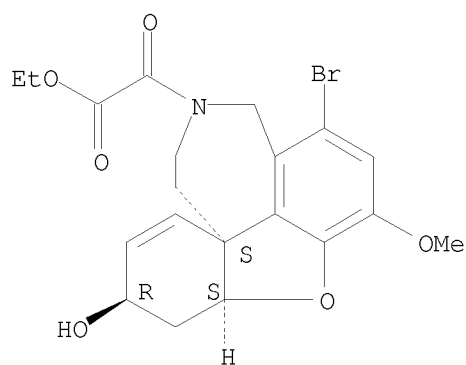


RN 198988-17-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-acetic acid, 5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy- $\alpha$ -oxo-, ethyl ester, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

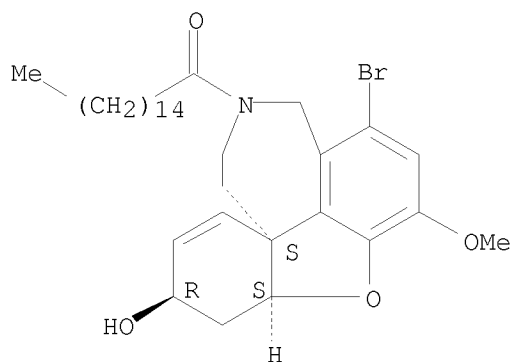
10/573,517



RN 198988-21-5 CAPLUS

CN 1-Hexadecanone, 1-[(8aR,10S,12aR)-5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]-, rel- (CA INDEX NAME)

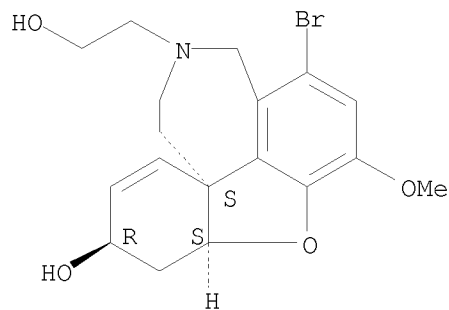
Relative stereochemistry.



RN 198988-24-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-ethanol, 1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

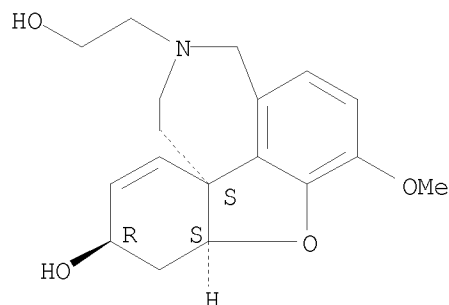
Relative stereochemistry.



10/573,517

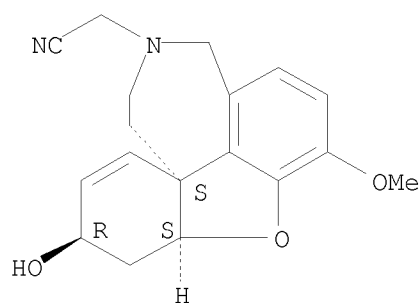
RN 198988-25-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-ethanol,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX  
NAME)

Relative stereochemistry.



RN 198988-29-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetonitrile,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX  
NAME)

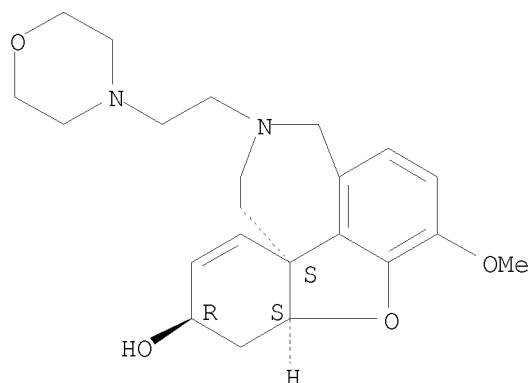
Relative stereochemistry.



RN 198988-30-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

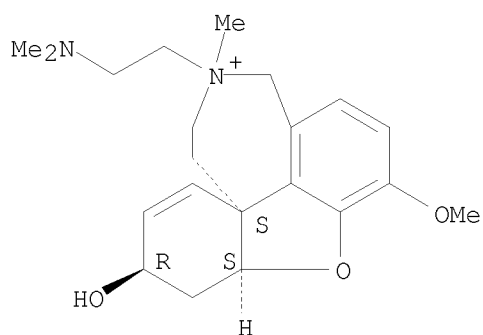
10/573,517



RN 198988-48-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 3-[2-(dimethylamino)ethyl]-1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-, chloride (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



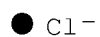
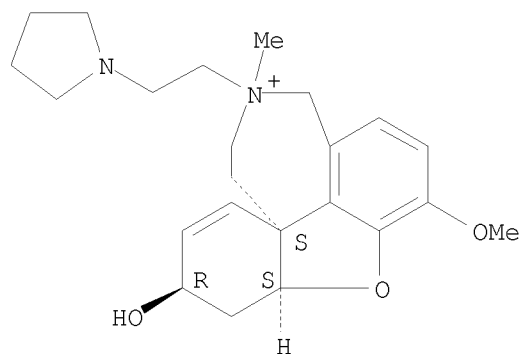
● Cl<sup>-</sup>

RN 198988-49-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[2-(1-pyrrolidinyl)ethyl]-, chloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

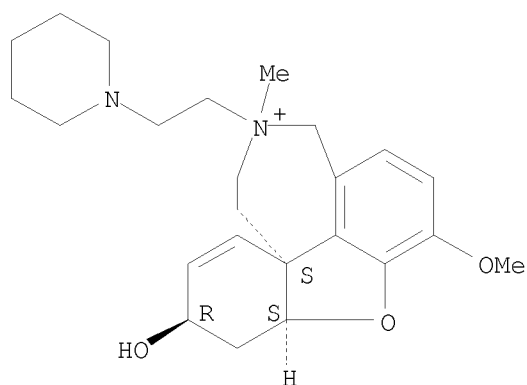
Absolute stereochemistry.

10/573,517



RN 198988-52-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[2-(1-piperidiny)ethyl]-, chloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

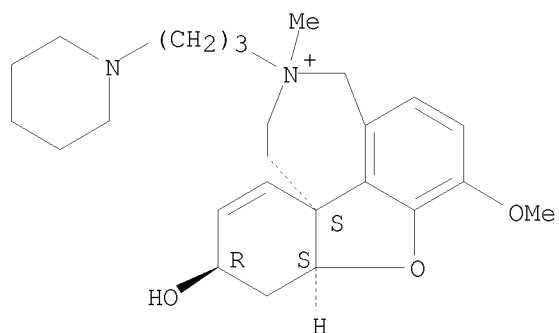
Absolute stereochemistry.



RN 198988-54-4 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[3-(1-piperidiny)propyl]-, chloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

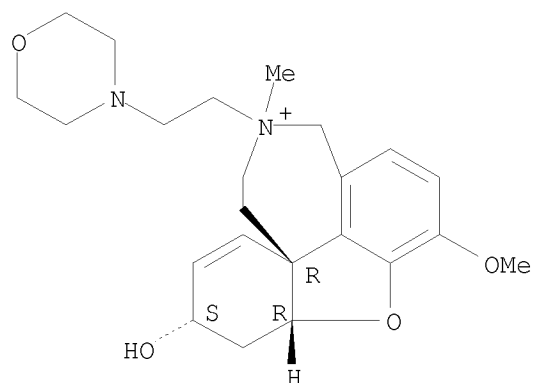
Absolute stereochemistry.

10/573,517



RN 198988-55-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[2-(4-morpholinyl)ethyl]-, chloride (1:1), (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry.

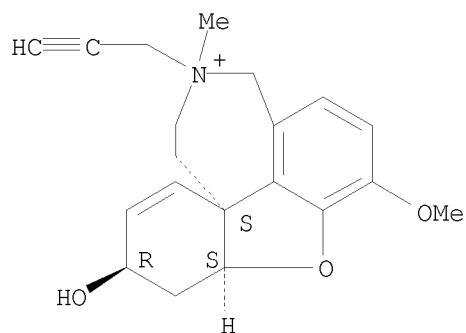


RN 198988-57-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-(2-propyn-1-yl)-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

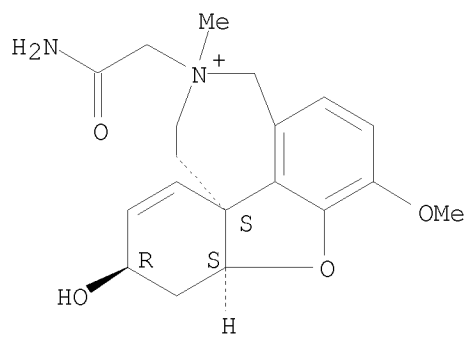


10/573,517



RN 198988-58-8 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 2-(2-amino-2-oxoethyl)-  
1,2,3,4,8,8a-hexahydro-7-hydroxy-10-methoxy-2-methyl-, bromide (1:1),  
(4aS,7R,8aS)- (CA INDEX NAME)

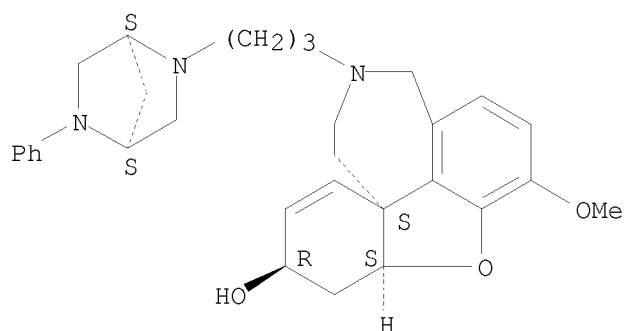
Absolute stereochemistry.



RN 198988-63-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-[3-[(1R,4R)-5-phenyl-2,5-diazabicyclo[2.2.1]hept-2-yl]propyl]-,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

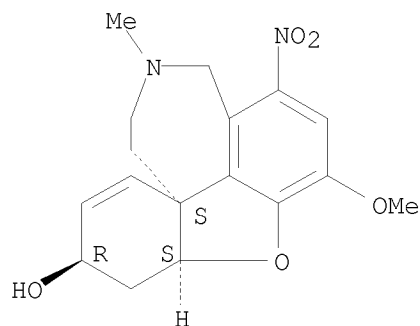
10/573,517



RN 198988-73-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-1-nitro-, (4aS,6R,8aS)- (CA INDEX NAME)

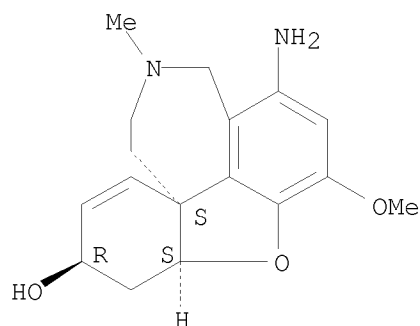
Absolute stereochemistry. Rotation (-).



RN 198988-74-8 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 5-amino-3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

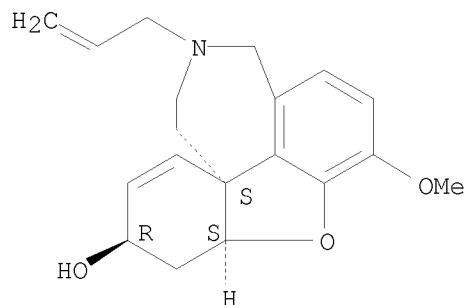


RN 199014-24-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propen-1-yl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

10/573,517

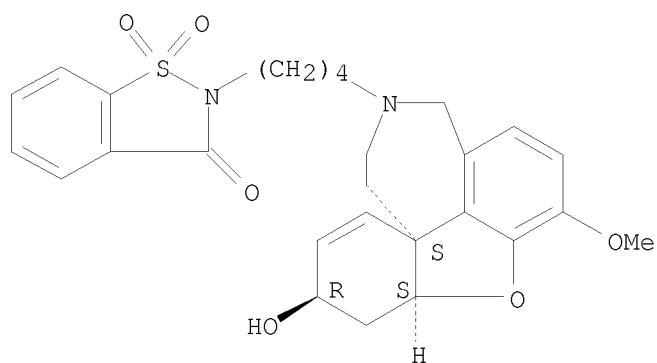
Relative stereochemistry.



RN 365570-18-9 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]-, 1,1-dioxide (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 365570-19-0 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]butyl]-, 1,1-dioxide, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

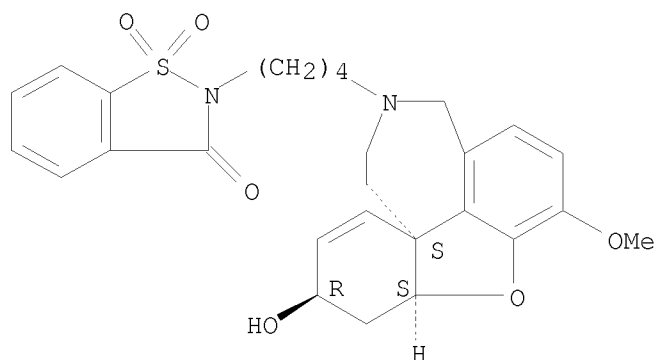
CM 1

CRN 365570-18-9

CMF C27 H30 N2 O6 S

Absolute stereochemistry. Rotation (-).

10/573,517

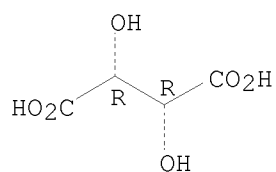


CM 2

CRN 87-69-4

CMF C4 H6 O6

Absolute stereochemistry.



RN 365570-21-4 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]-, 1,1-dioxide, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

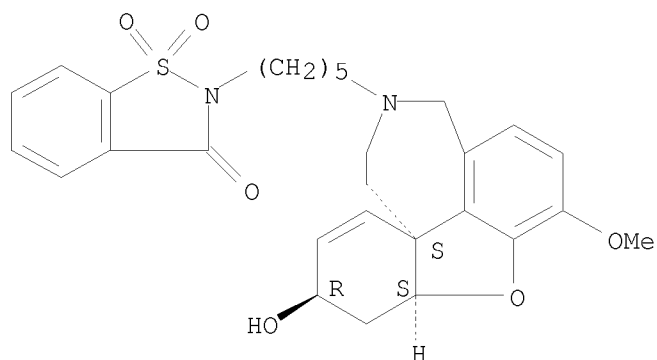
CM 1

CRN 365570-20-3

CMF C28 H32 N2 O6 S

Absolute stereochemistry. Rotation (-).

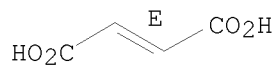
10/573,517



CM 2

CRN 110-17-8  
CMF C4 H4 O4

Double bond geometry as shown.

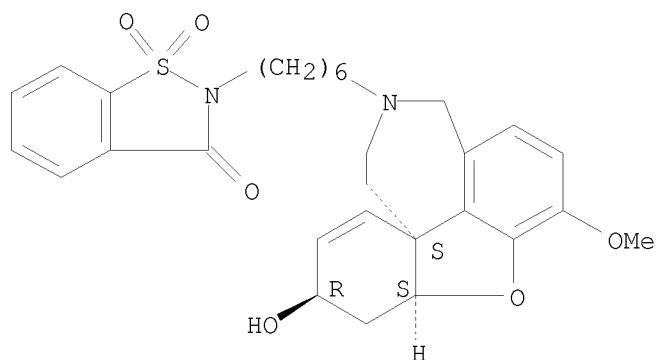


RN 365570-23-6 CAPLUS  
CN 1,2-Benzisothiazol-3(2H)-one, 2-[6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]-, 1,1-dioxide, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365570-22-5  
CMF C29 H34 N2 O6 S

Absolute stereochemistry. Rotation (-).

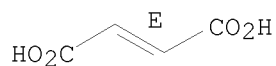


CM 2

10/573,517

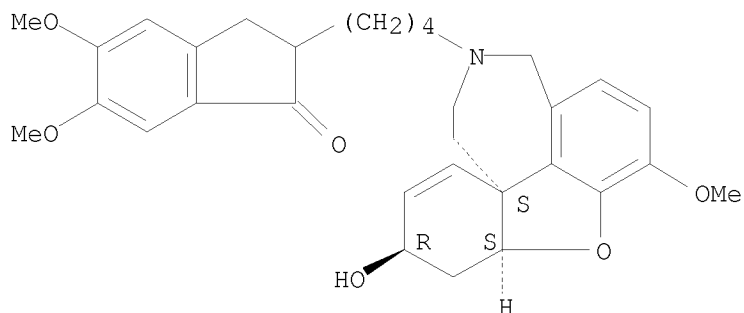
CRN 110-17-8  
CMF C4 H4 O4

Double bond geometry as shown.



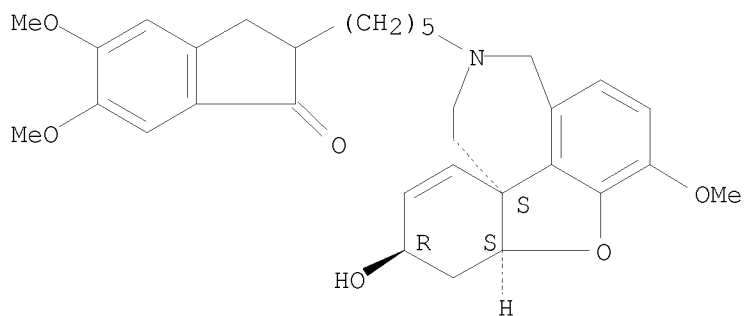
RN 365570-24-7 CAPLUS  
CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 365570-25-8 CAPLUS  
CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]- (CA INDEX NAME)

Absolute stereochemistry.



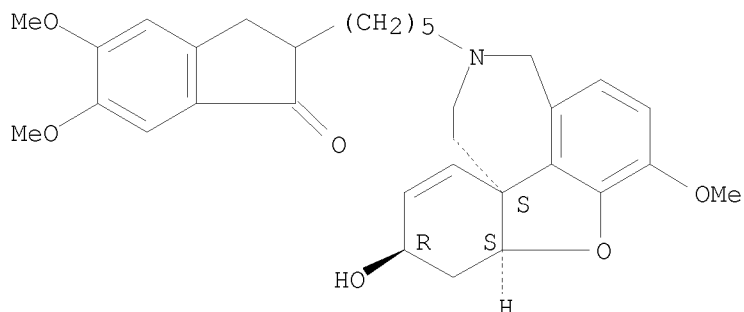
RN 365570-26-9 CAPLUS  
CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

10/573,517

CRN 365570-25-8  
CMF C32 H39 N O6

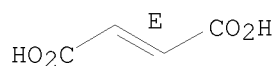
Absolute stereochemistry.



CM 2

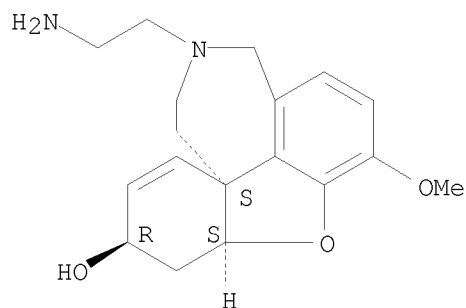
CRN 110-17-8  
CMF C4 H4 O4

Double bond geometry as shown.



RN 365570-54-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(2-aminoethyl)-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

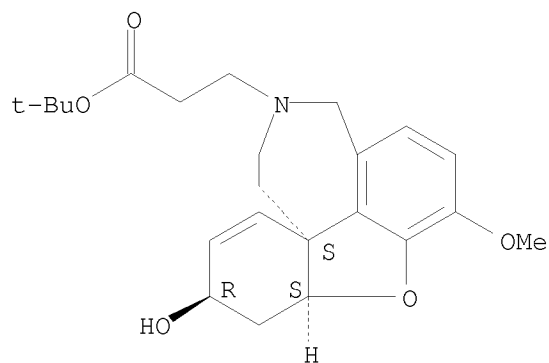
Absolute stereochemistry. Rotation (-).



RN 365570-56-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 1,1-dimethylethyl ester,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

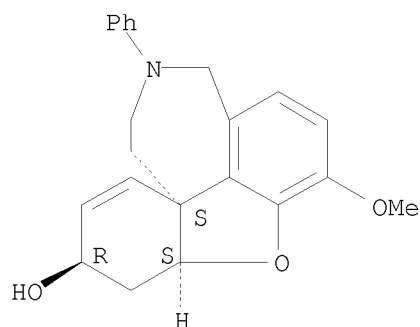
10/573,517



RN 365570-62-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-phenyl-, (4aS,6R,8aS)- (CA INDEX NAME)

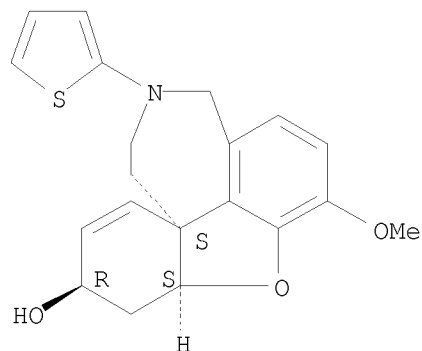
Absolute stereochemistry. Rotation (-).



RN 365570-63-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-thienyl)-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 365570-64-5 CAPLUS

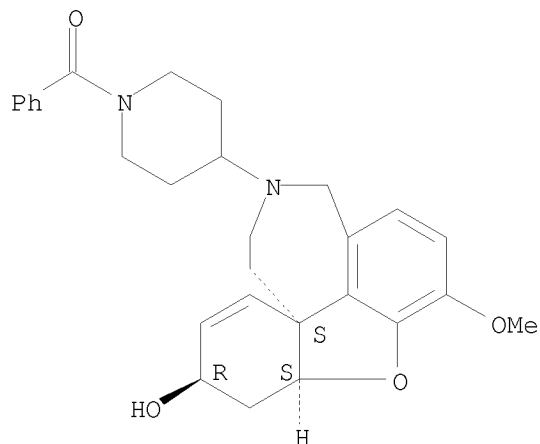
CN Methanone, phenyl[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-



10/573,517

6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-1-piperidinyl]- (CA INDEX NAME)

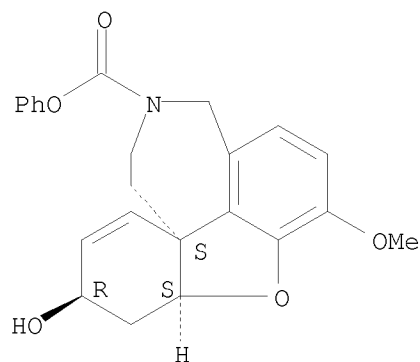
Absolute stereochemistry. Rotation (-).



RN 365570-65-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, phenyl ester, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

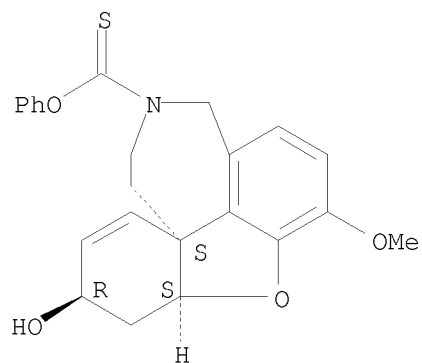


RN 365570-66-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioic acid, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, O-phenyl ester, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

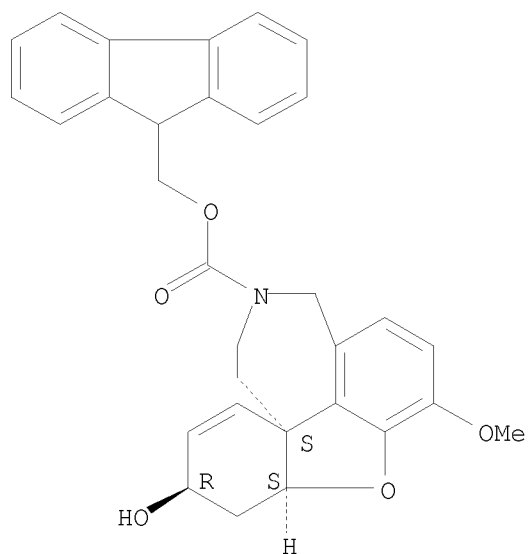
10/573,517



RN 365570-67-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 9H-fluoren-9-ylmethyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

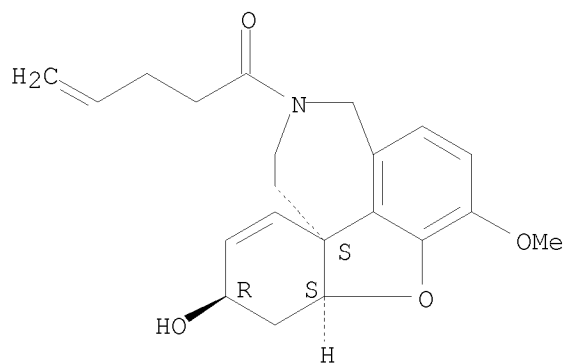


RN 365570-68-9 CAPLUS

CN 4-Penten-1-one, 1-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-  
10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

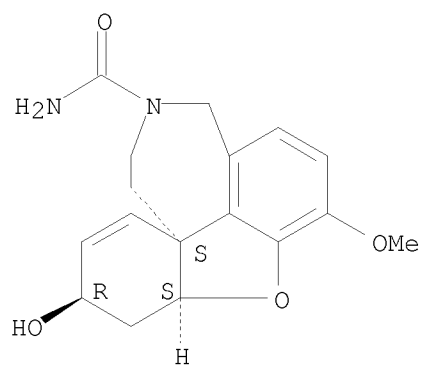
10/573,517



RN 365570-69-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

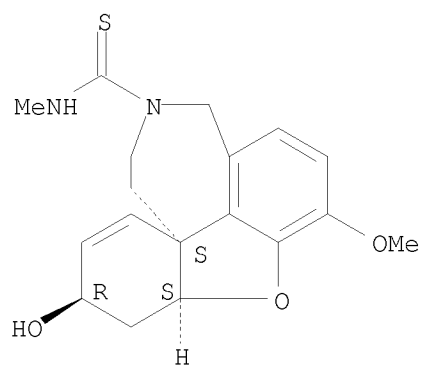


RN 365570-70-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-methyl-, (4aS,6R,8aS)- (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (-).

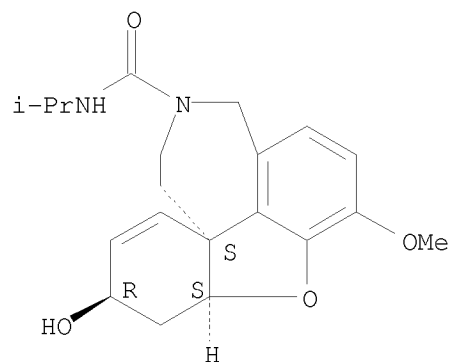
10/573,517



RN 365570-71-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-,  
(8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

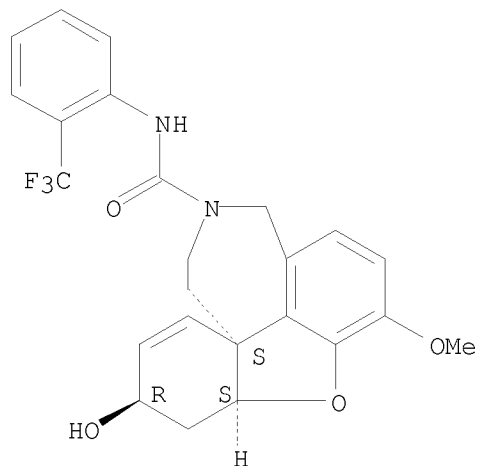


RN 365570-72-5 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-[2-(trifluoromethyl)phenyl]-,  
(8aS,10R,12aS)- (CA INDEX NAME)

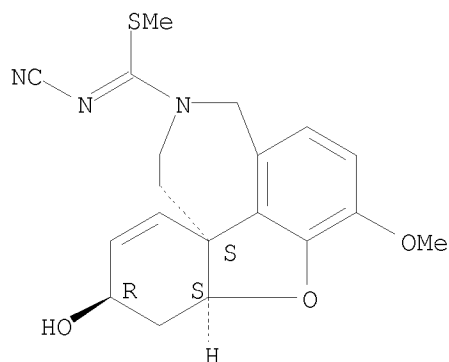
Absolute stereochemistry. Rotation (-).

10/573,517



RN 365570-73-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboximidothioic acid,  
N-cyano-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, methyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

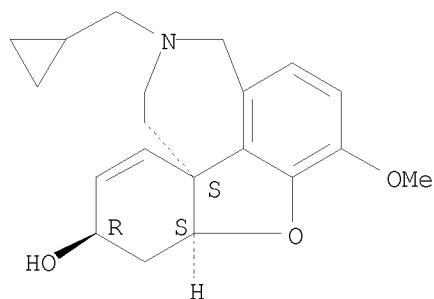
Absolute stereochemistry.  
Double bond geometry unknown.



RN 365570-74-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(cyclopropylmethyl)-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

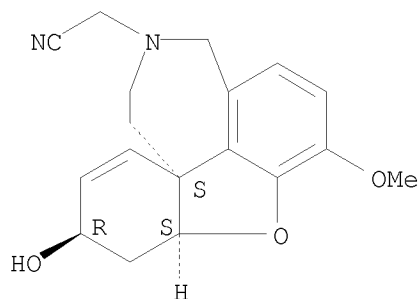
Absolute stereochemistry. Rotation (-).

10/573,517



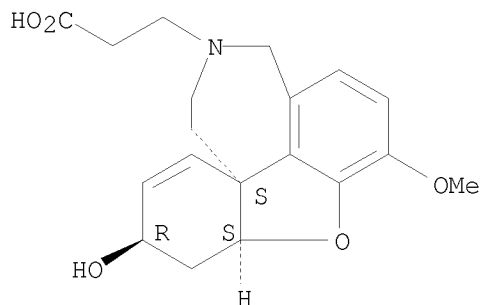
RN 365570-75-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetonitrile,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 365570-79-2 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-propanoic acid,  
3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aS,7R,8aS)- (CA INDEX NAME)

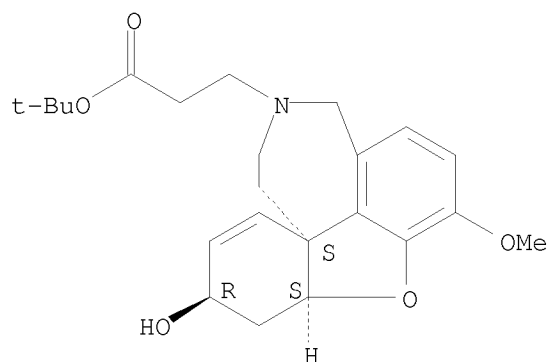
Absolute stereochemistry. Rotation (-).



RN 365570-80-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 1,1-dimethylethyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

10/573,517

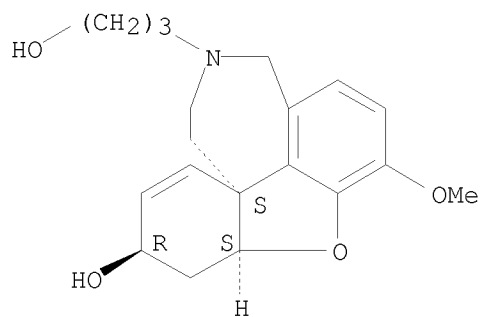
Absolute stereochemistry. Rotation (-).



RN 365570-81-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanol,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

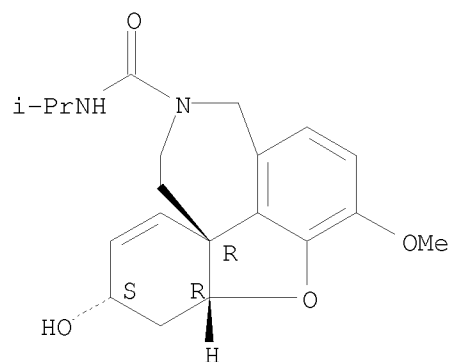
Absolute stereochemistry. Rotation (-).



RN 365570-85-0 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-,  
(8aR,10S,12aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

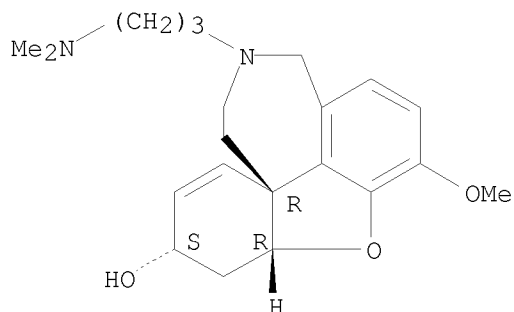


10/573,517

RN 365570-87-2 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3-(dimethylamino)propyl]-  
1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)- (CA INDEX NAME)

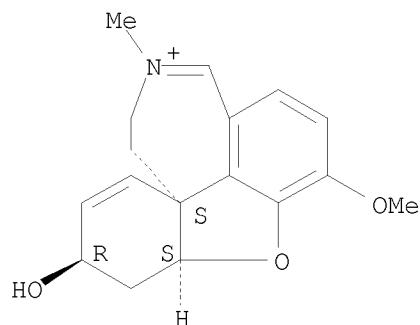
Absolute stereochemistry. Rotation (+).



RN 365571-13-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



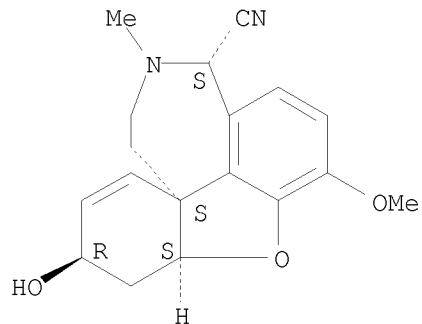
RN 365571-16-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-12-carbonitrile,  
4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-,  
(4aS,6R,8aS,12S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



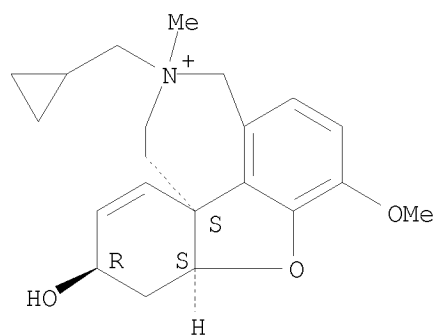
10/573,517



RN 365571-36-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-(cyclopropylmethyl)-  
4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1),  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



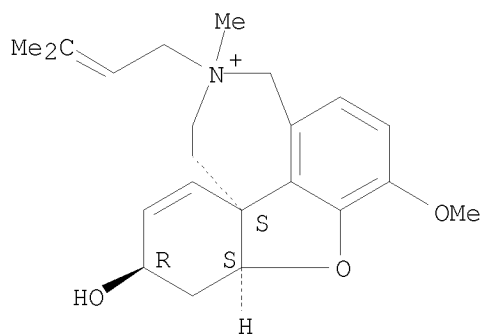
● Br<sup>-</sup>

RN 365571-37-5 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 1,2,3,4,8a,9-hexahydro-10-  
hydroxy-7-methoxy-3-methyl-3-(3-methyl-2-buten-1-yl)-, bromide (1:1),  
(8aS,10R,12aS)- (CA INDEX NAME)

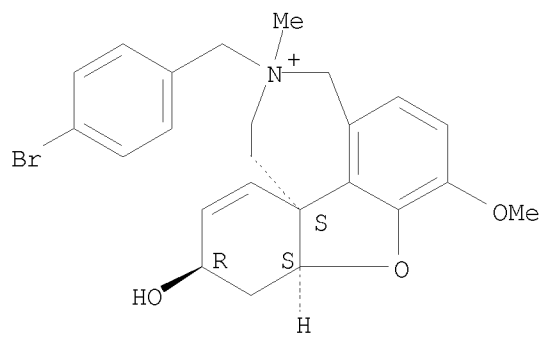
Absolute stereochemistry.

10/573,517



RN 365571-39-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-11-ium, 11-[(4-bromophenyl)methyl]-  
4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1),  
(4aS,6R,8aS)- (CA INDEX NAME)

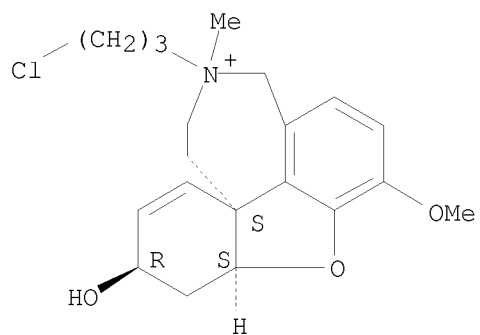
Absolute stereochemistry.



RN 365571-40-0 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-2-ium, 2-(3-chloropropyl)-1,2,3,4,8,8a-  
hexahydro-7-hydroxy-10-methoxy-2-methyl-, bromide (1:1), (4aS,7R,8aS)-  
(CA INDEX NAME)

Absolute stereochemistry.

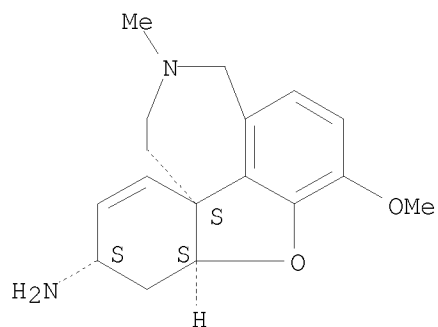
10/573,517



RN 365571-44-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-amine, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6S,8aS)- (CA INDEX NAME)

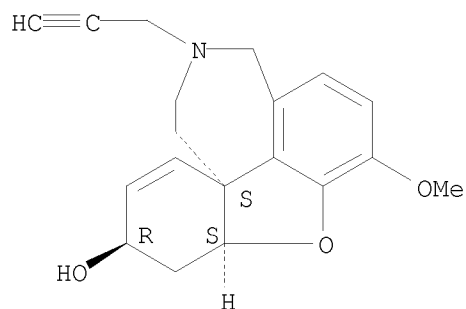
Absolute stereochemistry. Rotation (-).



RN 365571-47-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propyn-1-yl)-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

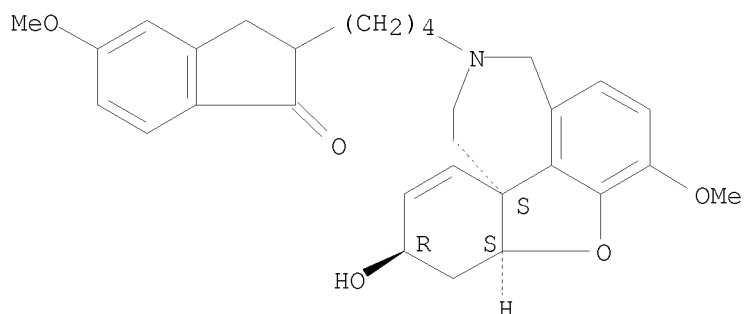


10/573,517

RN 365571-49-9 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-5-methoxy-2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 365571-50-2 CAPLUS

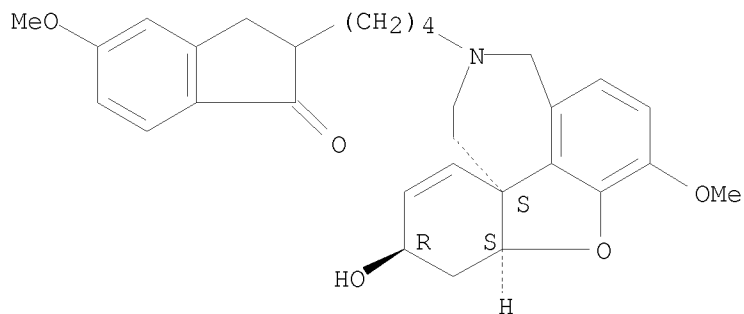
CN 1H-Inden-1-one, 2,3-dihydro-5-methoxy-2-[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]butyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365571-49-9

CMF C30 H35 N O5

Absolute stereochemistry.

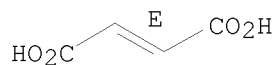


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.

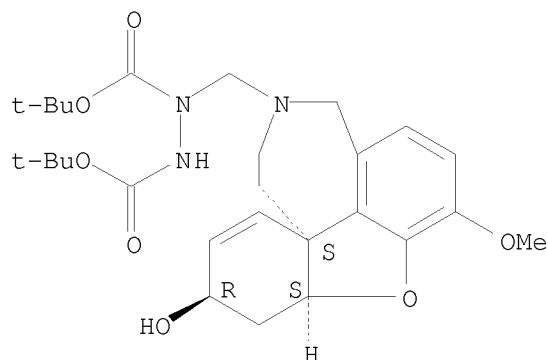


10/573,517

RN 365571-69-3 CAPLUS

CN 1,2-Hydrazinedicarboxylic acid, 1-[[[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]methyl]-, 1,2-bis(1,1-dimethylethyl) ester (CA INDEX NAME)

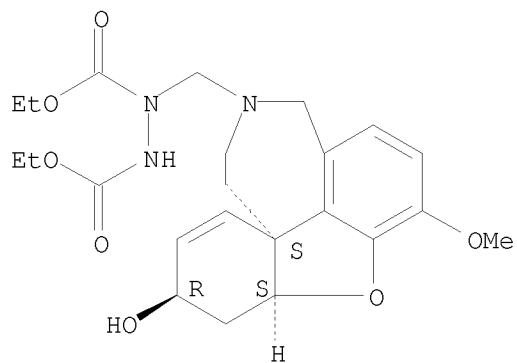
Absolute stereochemistry. Rotation (-).



RN 365571-70-6 CAPLUS

CN 1,2-Hydrazinedicarboxylic acid, 1-[[[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]methyl]-, 1,2-diethyl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

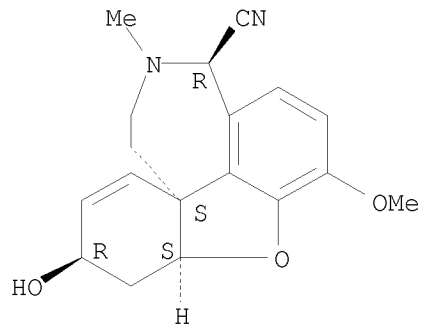


RN 365571-86-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-12-carbonitrile, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, (4aS,6R,8aS,12R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

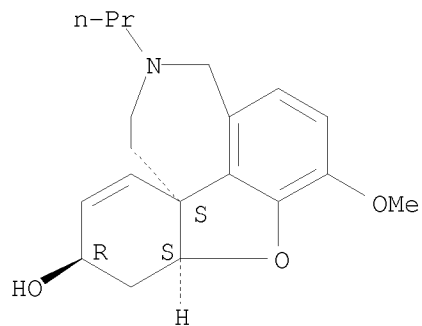
10/573,517



RN 366485-20-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-propyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

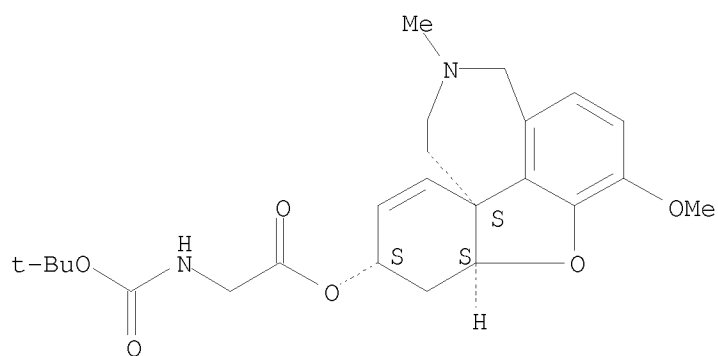


RN 849232-34-4 CAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, (4aS,6S,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, hydrochloride (1:1) (CA INDEX NAME)

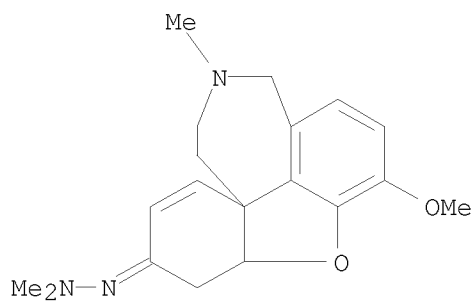
Absolute stereochemistry. Rotation (-).

10/573,517

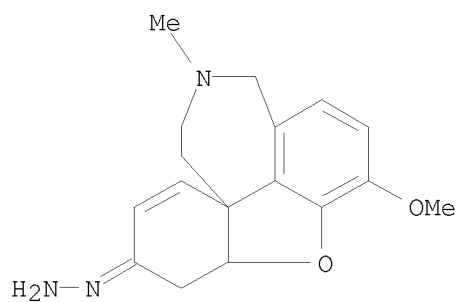


● HCl

RN 849232-39-9 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 2-methylhydrazone (CA INDEX NAME)



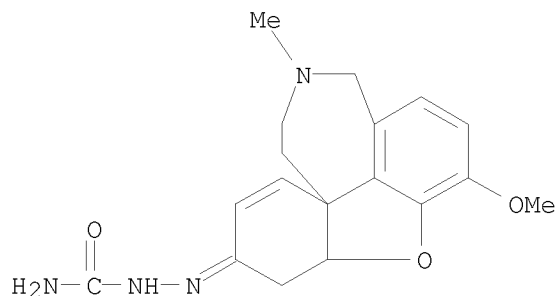
RN 849232-43-5 CAPLUS  
CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, hydrazone (CA INDEX NAME)



RN 849232-44-6 CAPLUS

10/573,517

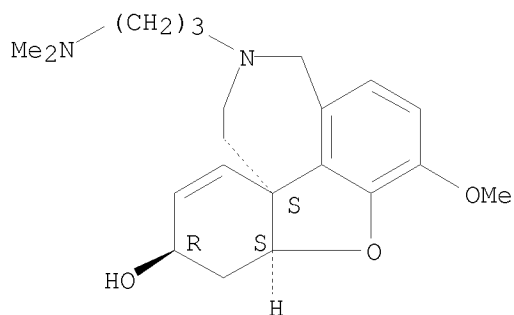
CN Hydrazinecarboxamide, 2-(1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-ylidene)- (CA INDEX NAME)



RN 849232-64-0 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3-(dimethylamino)propyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

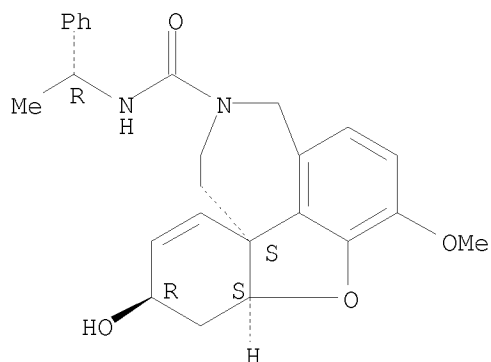
Relative stereochemistry.



RN 849232-91-3 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carboxamide, 3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-N-[(1R)-1-phenylethyl]-, (7R)- (CA INDEX NAME)

Absolute stereochemistry.





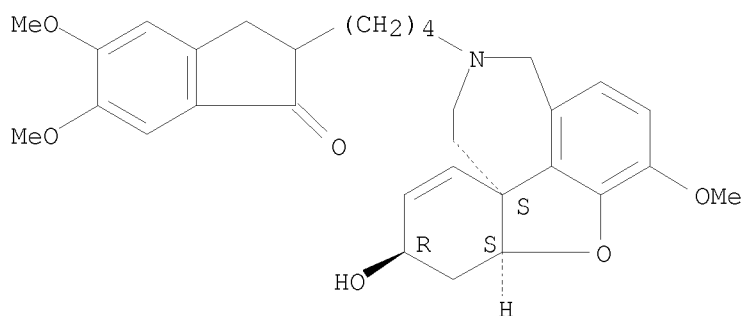
10/573,517

RN 849232-97-9 CAPLUS  
CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]butyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365570-24-7  
CMF C31 H37 N O6

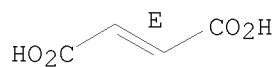
Absolute stereochemistry.



CM 2

CRN 110-17-8  
CMF C4 H4 O4

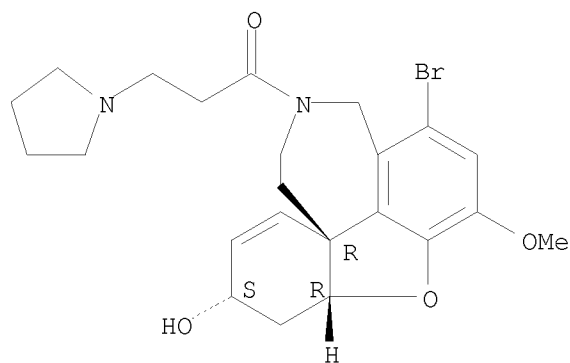
Double bond geometry as shown.



RN 849232-98-0 CAPLUS  
CN 1-Propanone, 1-[(4aR,7S,8aR)-12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]-3-(1-pyrrolidinyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

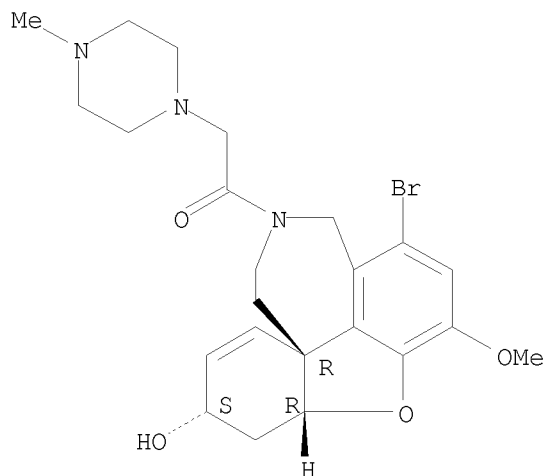
10/573,517



RN 849232-99-1 CAPLUS

CN Ethanone, 1-[(4aR,7S,8aR)-12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]-2-(4-methyl-1-piperazinyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

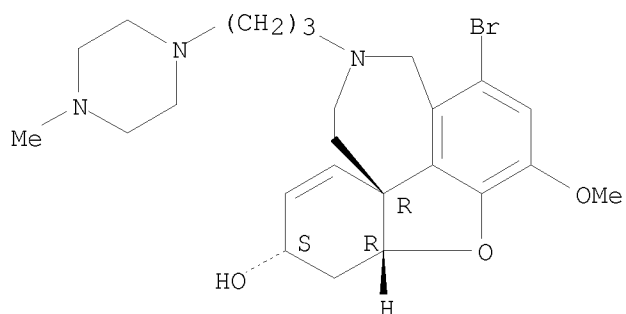


RN 849233-00-7 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 12-bromo-1,2,3,4,8,8a-hexahydro-10-methoxy-2-[3-(4-methyl-1-piperazinyl)propyl]-, hydrochloride (1:3), (4aR,7S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

10/573,517

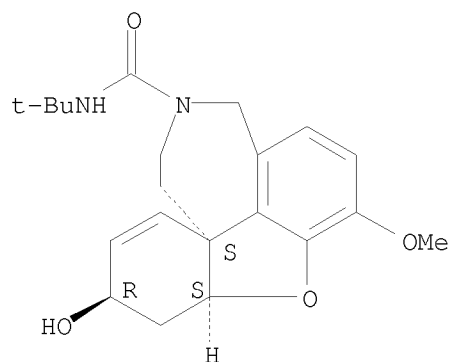


●3 HCl

RN 849355-37-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-(1,1-dimethylethyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

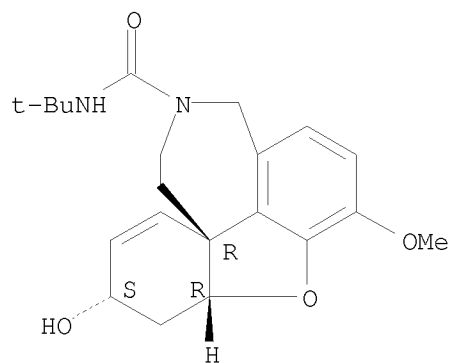


RN 849355-38-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-(1,1-dimethylethyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

10/573,517

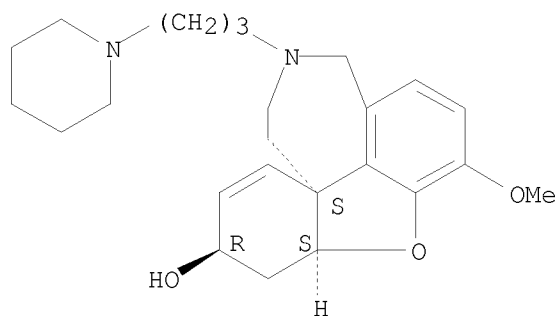


RN 849355-39-1 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, (4aS,6R,8aS)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 331824-90-9  
CMF C24 H34 N2 O3

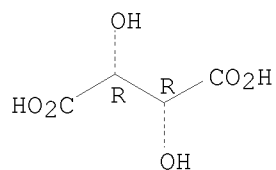
Absolute stereochemistry. Rotation (-).



CM 2

CRN 87-69-4  
CMF C4 H6 O6

Absolute stereochemistry.

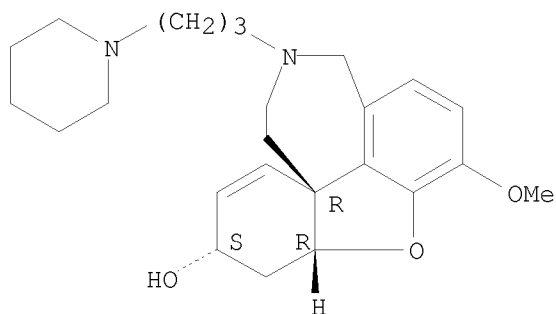


10/573,517

RN 849355-41-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, (4aR,6S,8aR)- (CA INDEX NAME)

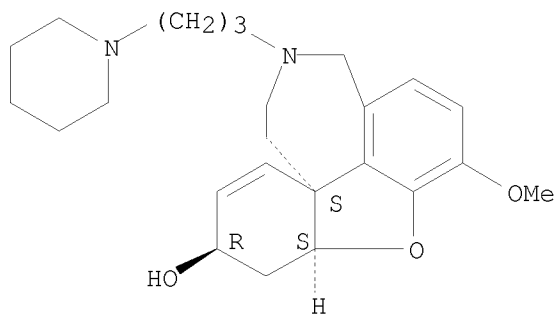
Absolute stereochemistry. Rotation (+).



RN 849355-42-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, hydrobromide (1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



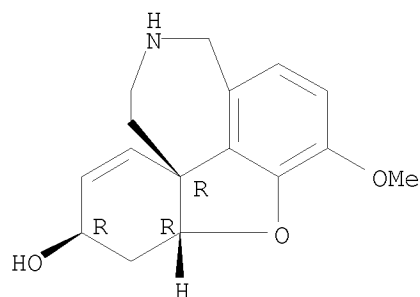
● 2 HBr

RN 849370-83-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10R,12aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

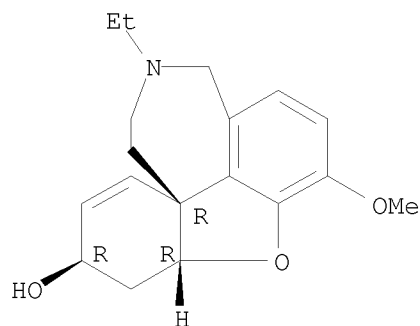
10/573,517



RN 849370-85-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-ethyl-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6R,8aR)- (CA INDEX NAME)

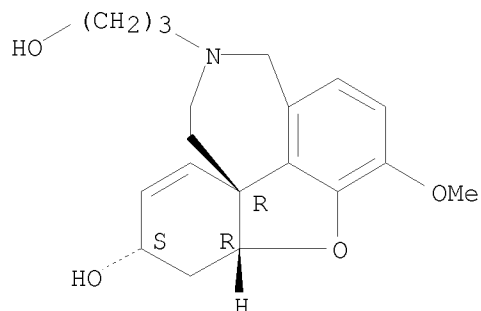
Absolute stereochemistry. Rotation (+).



RN 849370-88-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanol, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 849370-96-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-pyrimidinyl)-, (4aS,6R,8aS)- (CA INDEX NAME)

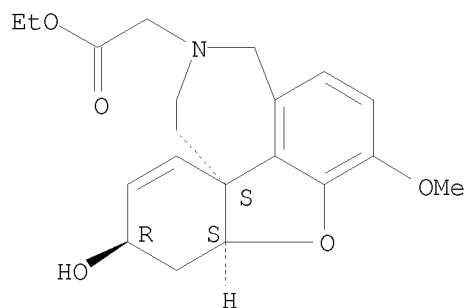
Absolute stereochemistry. Rotation (-).

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(4,6-dichloro-1,3,5-triazin-2-yl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-acetic acid,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, ethyl ester, (8aS,10R,12aS)-  
(CA INDEX NAME)

Page 83

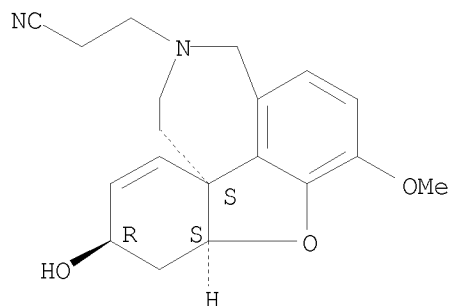
10/573,517



RN 849371-09-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanenitrile,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

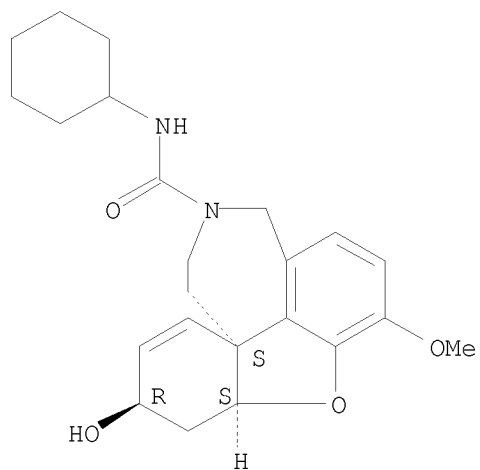
Absolute stereochemistry. Rotation (-).



RN 849371-10-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-cyclohexyl-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (-).



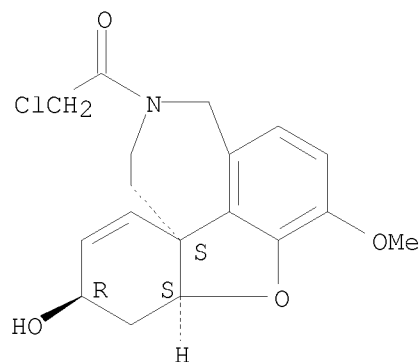


10/573,517

RN 849371-11-5 CAPLUS

CN Ethanone, 2-chloro-1-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

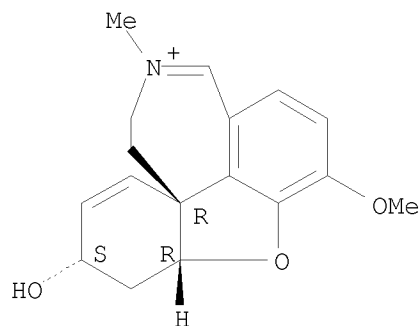
Absolute stereochemistry. Rotation (-).



RN 849371-12-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

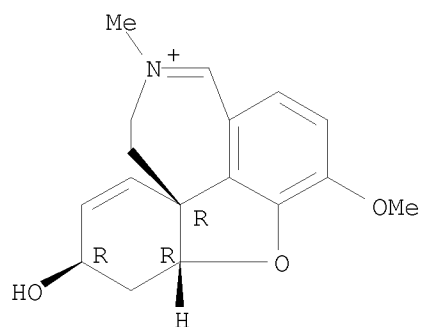


RN 849371-13-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aR,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

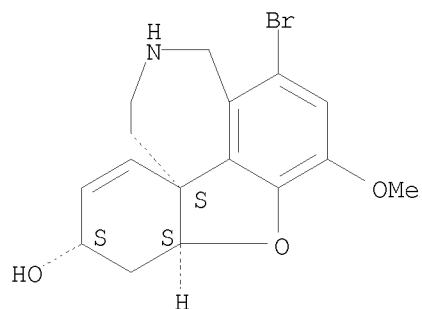
10/573,517



RN 849439-75-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6S,8aS)- (CA INDEX NAME)

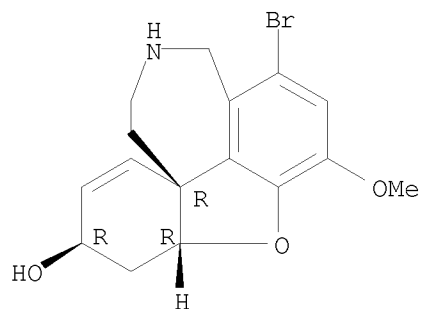
Absolute stereochemistry. Rotation (-).



RN 849439-76-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6R,8aR)- (CA INDEX NAME)

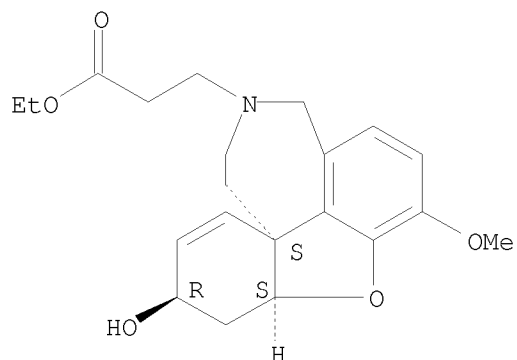
Absolute stereochemistry. Rotation (+).



10/573,517

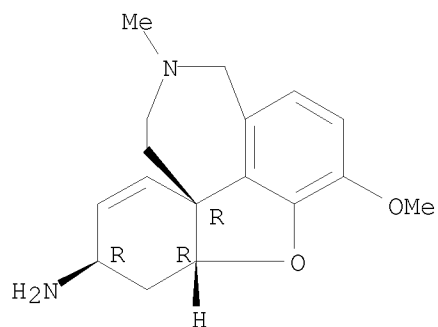
RN 849460-82-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, ethyl ester, (4aS,6R,8aS)- (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 1008759-15-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-amine, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, hydrochloride (1:2), (4aR,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

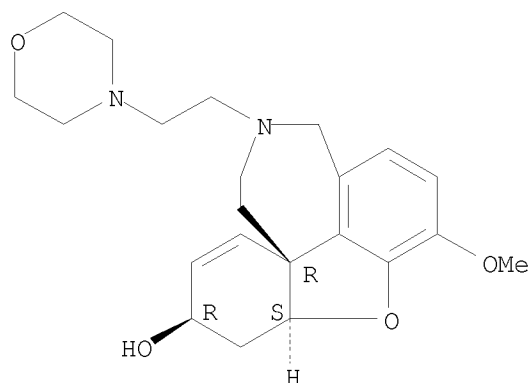


● 2 HCl

RN 1008759-16-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aS,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry.

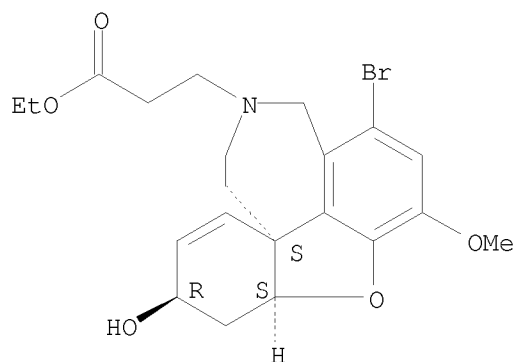
10/573,517



RN 1008759-17-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-propanoic acid,  
5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, ethyl ester, (10R)-  
(CA INDEX NAME)

Absolute stereochemistry.

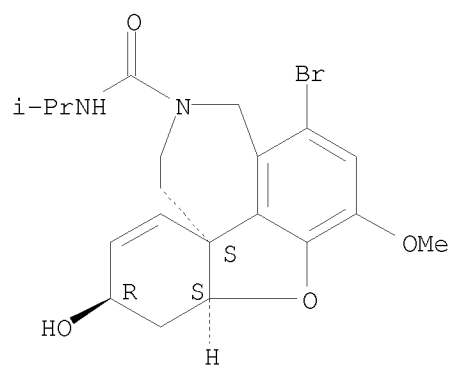


RN 1008759-25-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-(1-methylethyl)-,  
(4aS,6R,8aS)- (CA INDEX NAME)

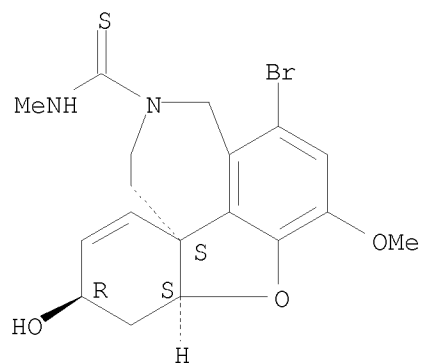
Absolute stereochemistry.

10/573,517



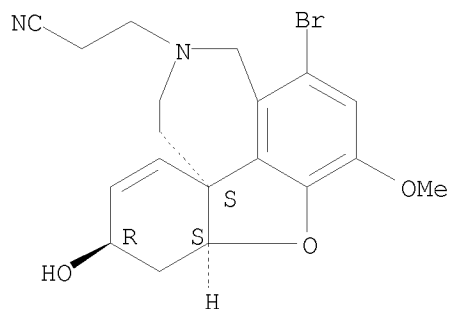
RN 1008759-26-9 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carbothioamide,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-N-methyl-, (7R)- (CA  
INDEX NAME)

Absolute stereochemistry.



RN 1008759-27-0 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-propanenitrile,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (7R)- (CA INDEX NAME)

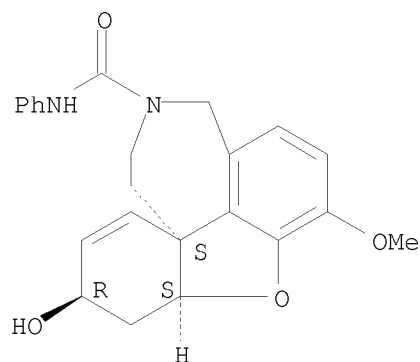
Absolute stereochemistry.



10/573,517

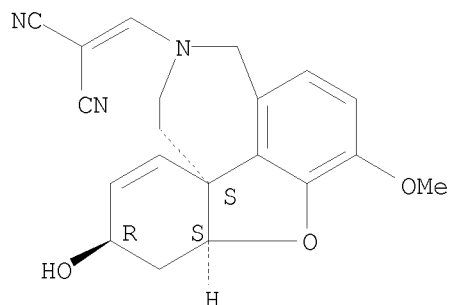
RN 1008759-30-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-phenyl-, (4aS,6R,8aS)- (CA  
INDEX NAME)

Absolute stereochemistry.



RN 1008759-34-9 CAPLUS  
CN Propanedinitrile, 2-[[ (4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]methylene]- (CA  
INDEX NAME)

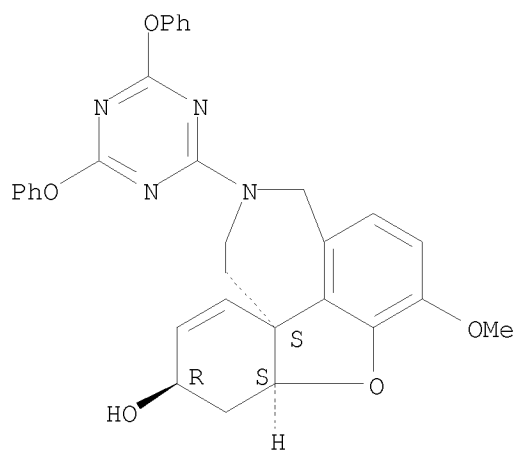
Absolute stereochemistry.



RN 1008759-38-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(4,6-diphenoxy-1,3,5-triazin-2-yl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (6R)- (CA INDEX NAME)

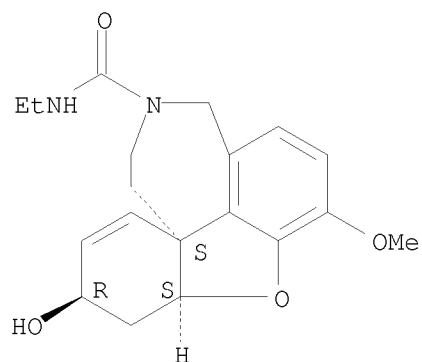
Absolute stereochemistry.

10/573,517



RN 1008759-41-8 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carboxamide,  
N-ethyl-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (7R)- (CA INDEX NAME)

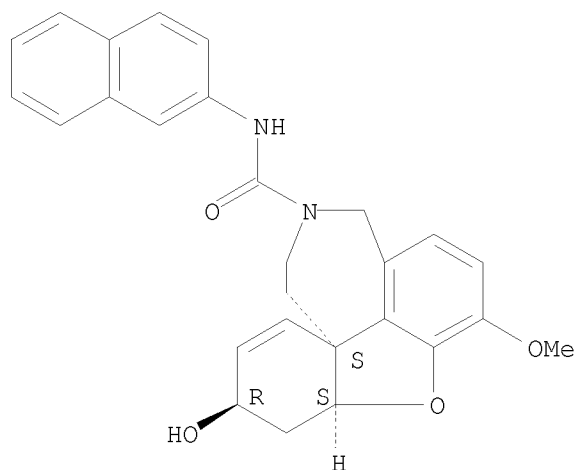
Absolute stereochemistry.



RN 1008759-42-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-2-naphthalenyl-, (4aS,6R,8aS)-  
(CA INDEX NAME)

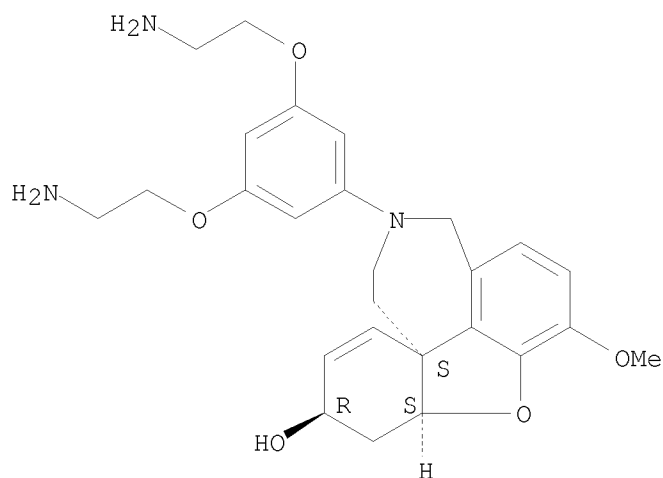
Absolute stereochemistry.

10/573,517



RN 1008759-43-0 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3,5-bis(2-aminoethoxy)phenyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (10R)- (CA INDEX NAME)

Absolute stereochemistry.

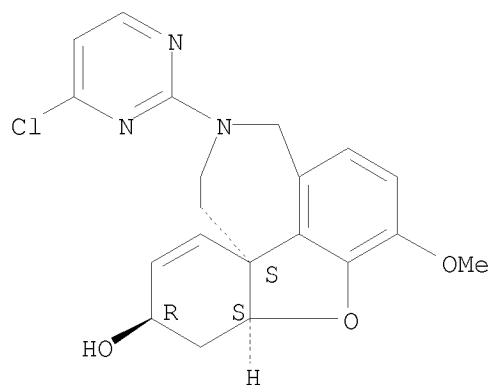


RN 1008759-44-1 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(4-chloro-2-pyrimidinyl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (6R)- (CA INDEX NAME)

Absolute stereochemistry.



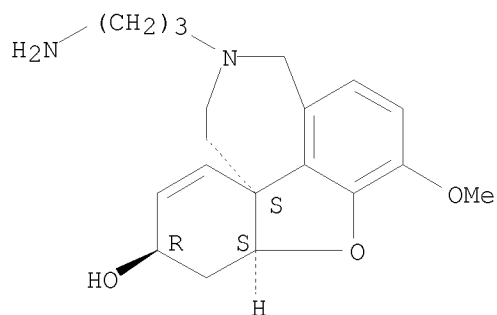
10/573,517



RN 1008759-45-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(3-aminopropyl)-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (6R)- (CA INDEX NAME)

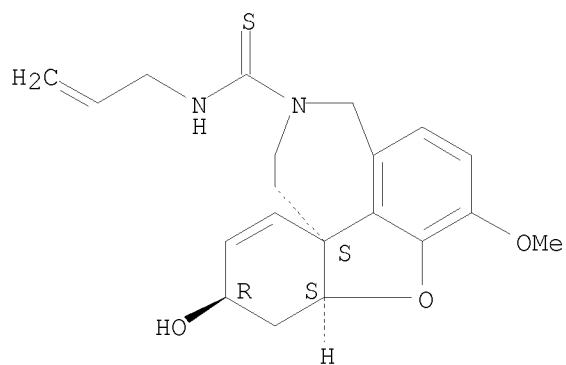
Absolute stereochemistry.



RN 1008759-46-3 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carbothioamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-2-propen-1-yl-, (10R)- (CA  
INDEX NAME)

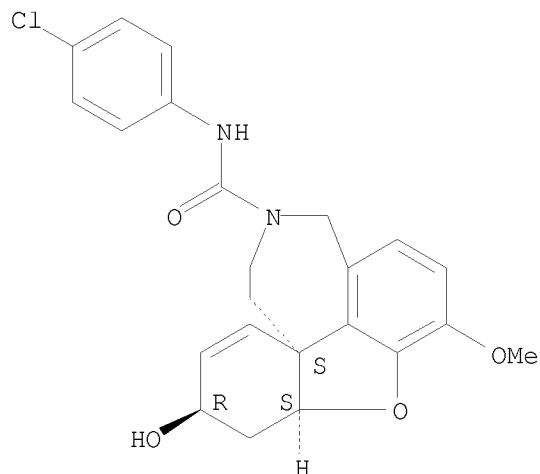
Absolute stereochemistry.



10/573,517

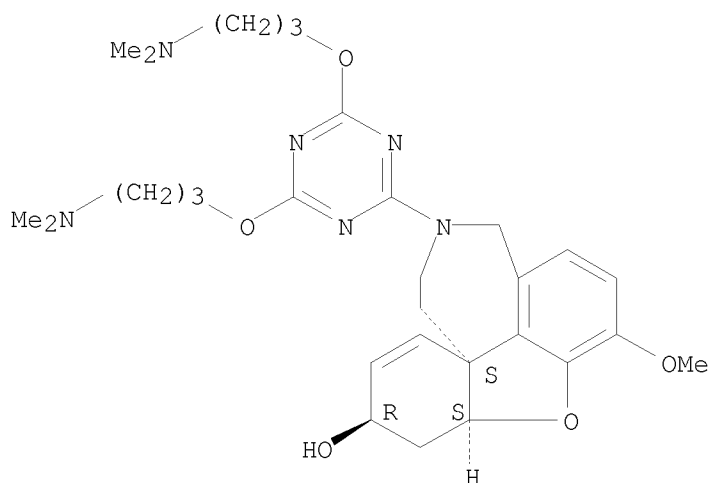
RN 1008759-47-4 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-(4-chlorophenyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 1008759-48-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4,6-bis[3-(dimethylamino)propoxy]-1,3,5-triazin-2-yl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

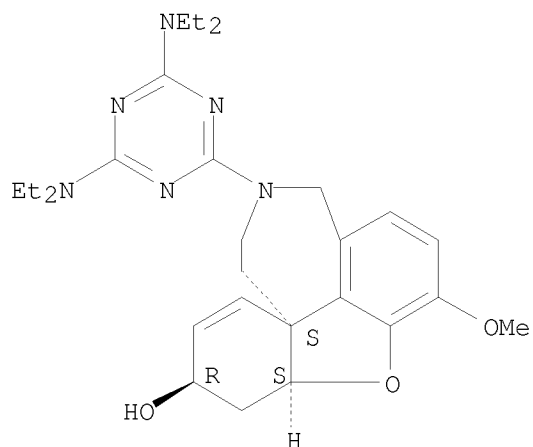
Absolute stereochemistry.



RN 1008759-49-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4,6-bis(diethylamino)-1,3,5-triazin-2-yl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

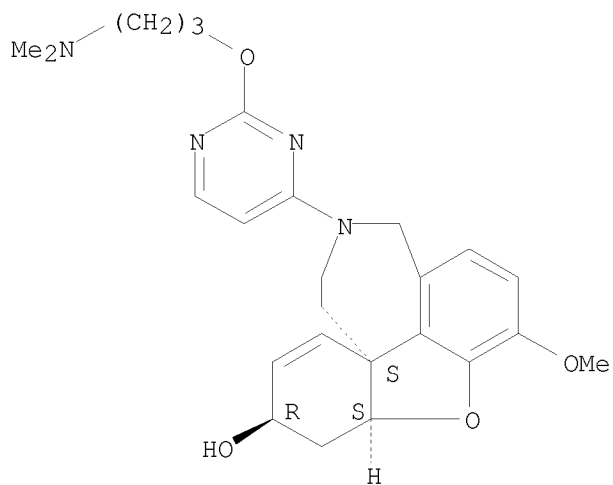
10/573,517

Absolute stereochemistry.



RN 1008759-50-9 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[2-[3-(dimethylamino)propoxy]-4-pyrimidinyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (10R)- (CA INDEX NAME)

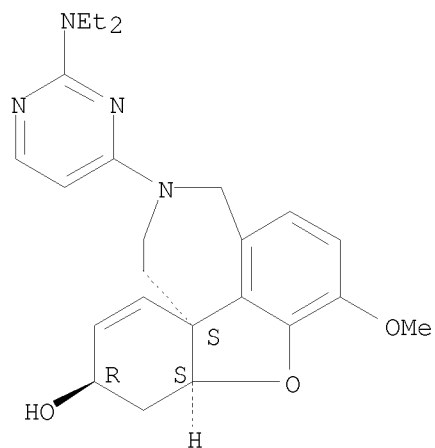
Absolute stereochemistry.



RN 1008759-51-0 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 2-[2-(diethylamino)-4-pyrimidinyl]-1,2,3,4,8,8a-hexahydro-10-methoxy-, (7R)- (CA INDEX NAME)

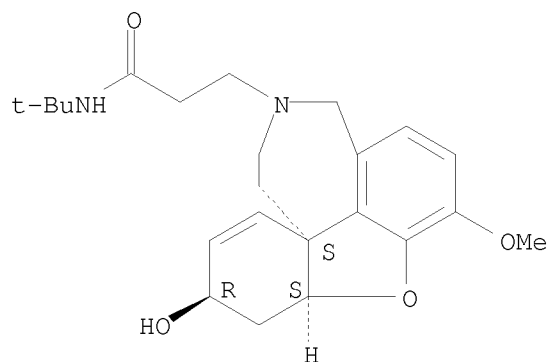
Absolute stereochemistry.

10/573,517



RN 1008759-54-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanamide,  
N-(1,1-dimethylethyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aS,6R,8aS)- (CA INDEX NAME)

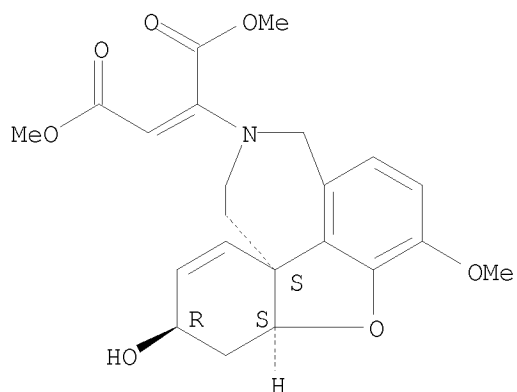
Absolute stereochemistry.



RN 1008759-57-6 CAPLUS  
CN 2-Butenedioic acid, 2-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, 1,4-dimethyl ester (CA INDEX NAME)

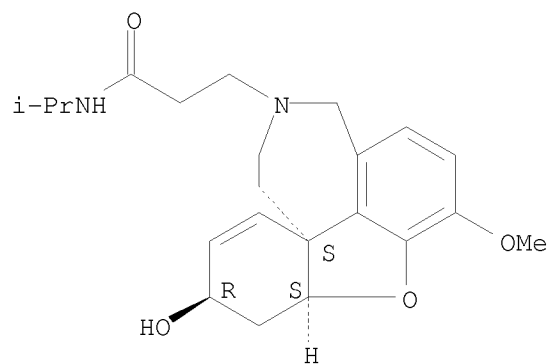
Absolute stereochemistry.  
Double bond geometry unknown.

10/573,517



RN 1008759-58-7 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-propanamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-, (10R)- (CA  
INDEX NAME)

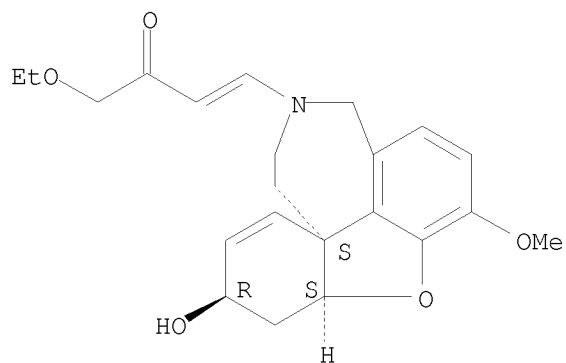
Absolute stereochemistry.



RN 1008759-60-1 CAPLUS  
CN 3-Buten-2-one, 1-ethoxy-4-[(10R)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-  
10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.

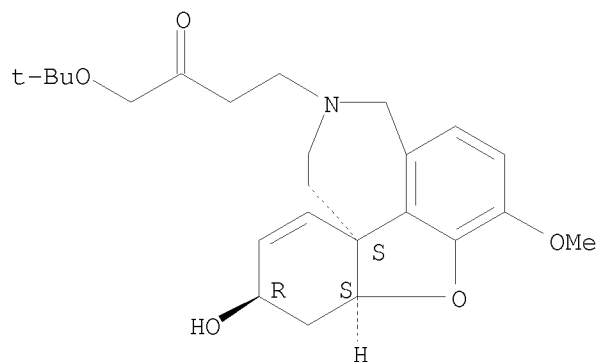
10/573,517



RN 1008759-62-3 CAPLUS

CN 2-Butanone, 1-(1,1-dimethylethoxy)-4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

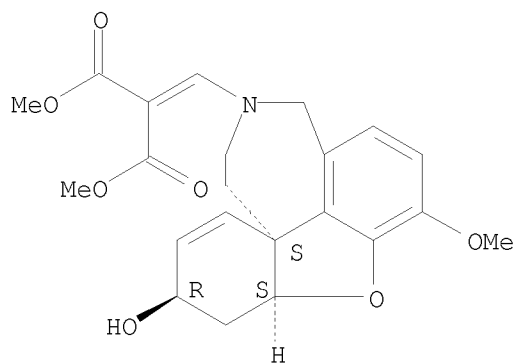


RN 1008759-63-4 CAPLUS

CN Propanedioic acid, 2-[[[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]methylene]-, 1,3-dimethyl ester (CA INDEX NAME)

Absolute stereochemistry.

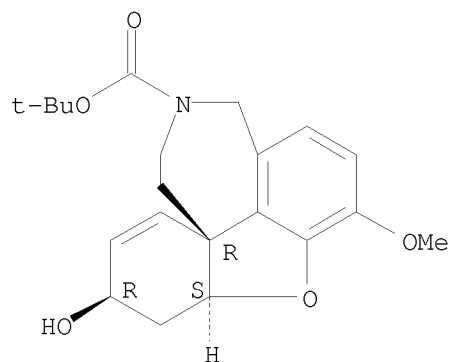
10/573,517



RN 1008759-64-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 1,1-dimethylethyl ester,  
(4aS,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry.

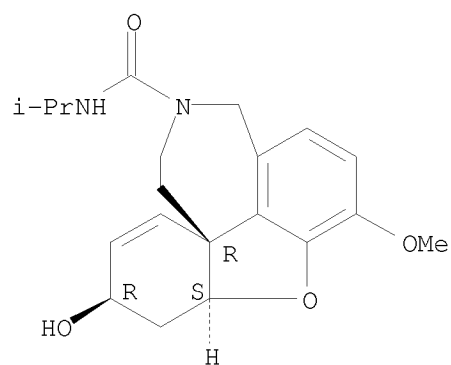


RN 1008759-65-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-,  
(8aS,10R,12aR)- (CA INDEX NAME)

Absolute stereochemistry.

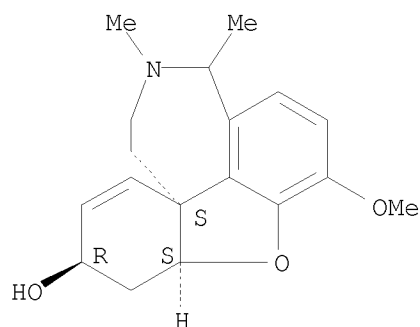
10/573,517



RN 1008759-67-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11,12-dimethyl-, (4aS,6R,8aS)- (CA INDEX NAME)

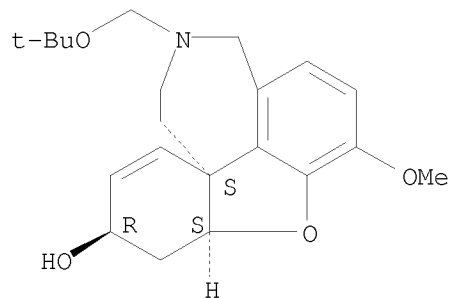
Absolute stereochemistry.



RN 1008759-69-0 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[(1,1-dimethylethoxy)methyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 1008759-72-5 CAPLUS

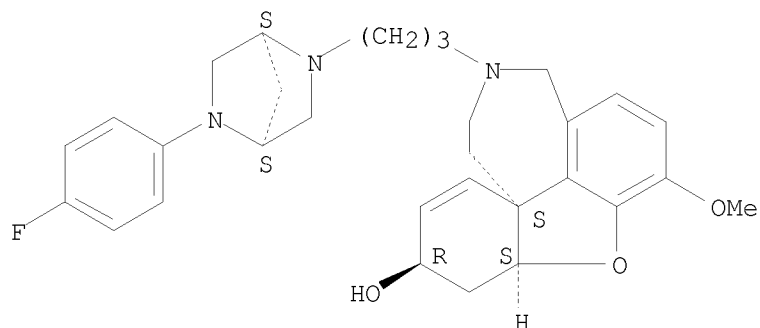
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[3-[(1S,4S)-5-(4-



10/573,517

fluorophenyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]propyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

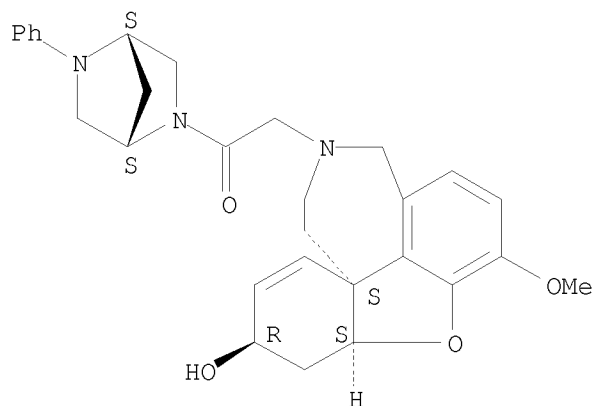
Absolute stereochemistry.



RN 1008759-73-6 CAPLUS

CN Ethanone, 1-[(1S,4S)-5-phenyl-2,5-diazabicyclo[2.2.1]hept-2-yl]-2-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

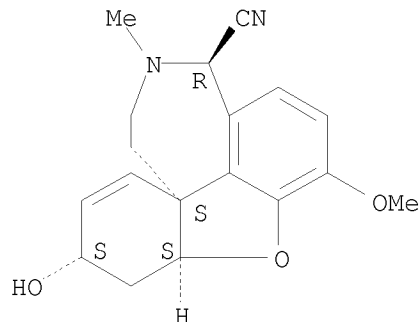


RN 1008759-76-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-12-carbonitrile, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, (4aS,6S,8aS,12R)- (CA INDEX NAME)

Absolute stereochemistry.

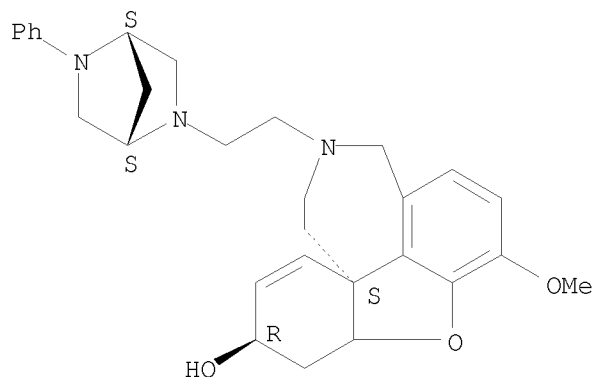
10/573,517



RN 1008759-78-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-[(1S,4S)-5-phenyl-2,5-diazabicyclo[2.2.1]hept-2-yl]ethyl]-, (6R,8aS)- (CA INDEX NAME)

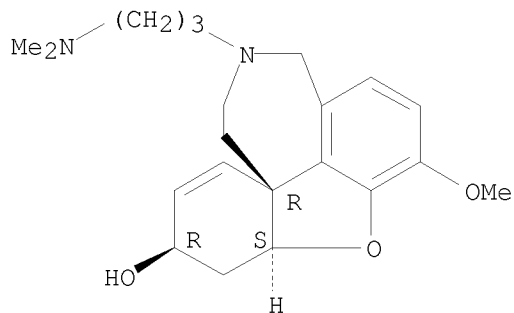
Absolute stereochemistry.



RN 1008759-79-2 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3-(dimethylamino)propyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aR)- (CA INDEX NAME)

Absolute stereochemistry.



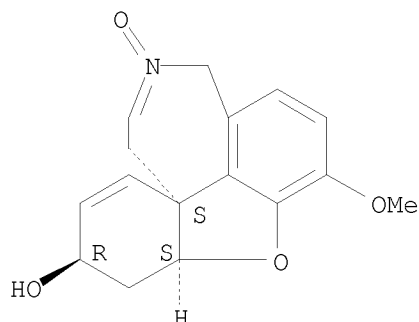
RN 1008759-80-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,12-tetrahydro-3-methoxy-

10/573,517

, 11-oxide, (4aS,6R,8aS)- (CA INDEX NAME)

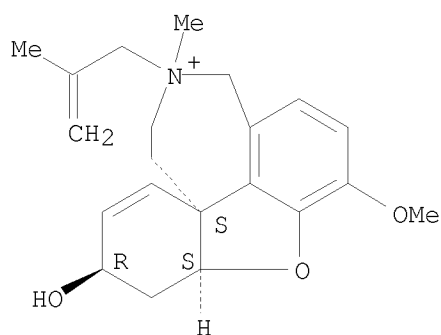
Absolute stereochemistry.



RN 1008759-88-3 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 1,2,3,4,8,8a-hexahydro-7-hydroxy-10-methoxy-2-methyl-2-(2-methyl-2-propen-1-yl)-, chloride (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



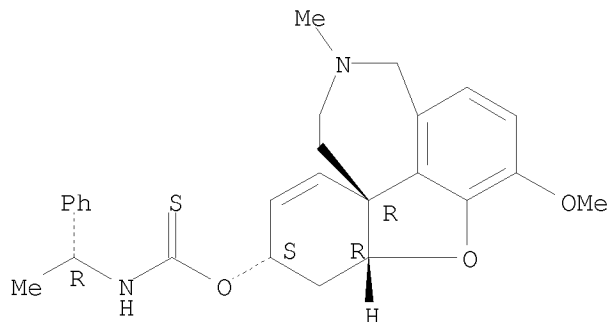
● Cl<sup>-</sup>

RN 1008759-90-7 CAPLUS

CN Carbamothioic acid, N-[(1R)-1-phenylethyl]-, O-[(4aR,6S,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

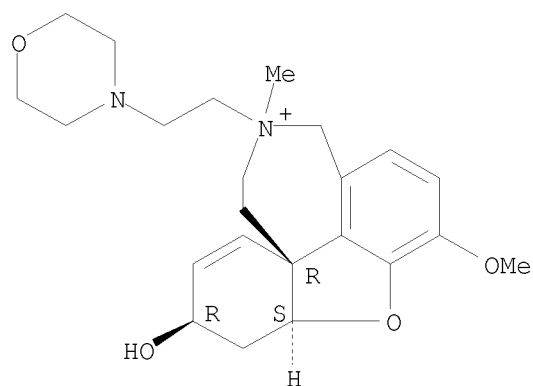
10/573,517



RN 1008760-07-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[2-(4-morpholinyl)ethyl]-, chloride (1:1), (4aS,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry.



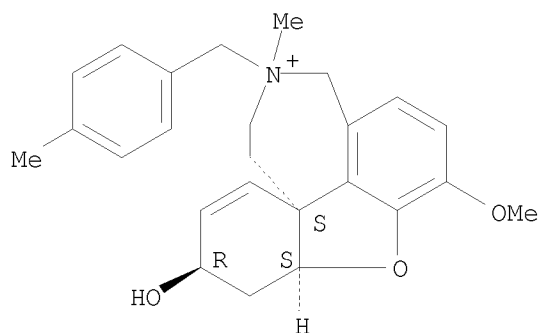
● Cl<sup>-</sup>

RN 1008760-67-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[(4-methylphenyl)methyl]-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

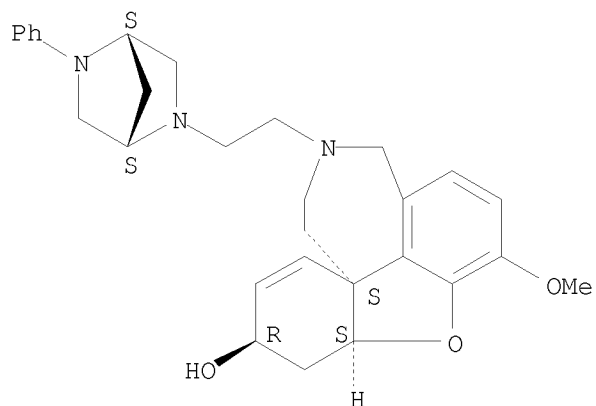
Absolute stereochemistry.

10/573,517



RN 1008760-72-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-[(1S,4S)-5-phenyl-2,5-diazabicyclo[2.2.1]hept-2-yl]ethyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

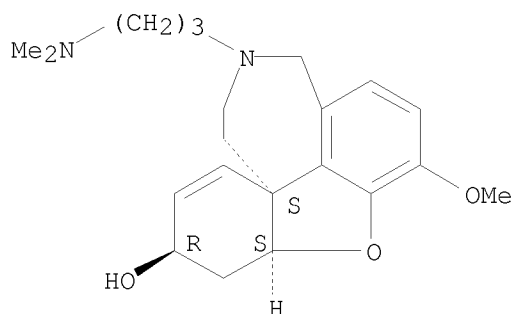
Absolute stereochemistry. Rotation (-).



RN 1009360-94-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3-(dimethylamino)propyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, hydrochloride (1:2), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

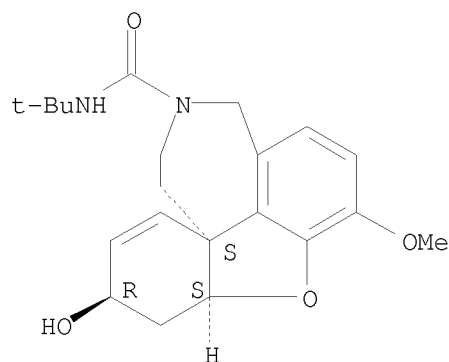
10/573,517



● 2 HCl

RN 1009360-95-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-(1,1-dimethylethyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



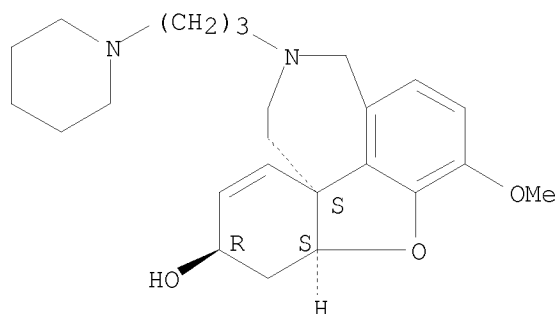
RN 1009360-96-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, (4aS,6R,8aS)-, (2R,3R)-2,3-dihydroxybutanedioate (2:3) (CA INDEX NAME)

CM 1

CRN 331824-90-9  
CMF C24 H34 N2 O3

Absolute stereochemistry. Rotation (-).

10/573,517

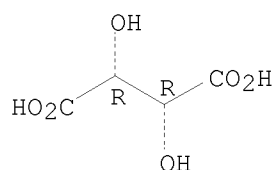


CM 2

CRN 87-69-4

CMF C4 H6 O6

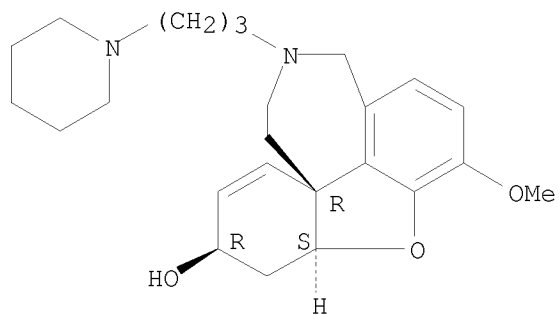
Absolute stereochemistry.



RN 1009360-99-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, (4aS,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry.



IT 357-70-0, Galanthamine 357-70-0D, Galanthamine, derivs.

849370-90-7 849371-21-7

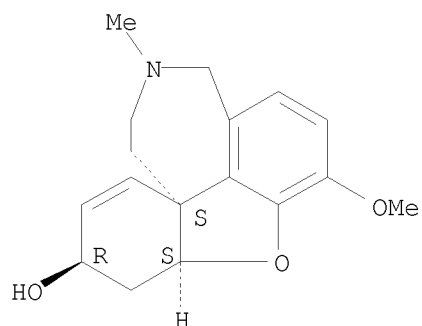
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(comps. for influencing effects of organophosphorus compds. and use of  
galanthamine, its derivs. and analogs for producing such compns.)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

10/573,517

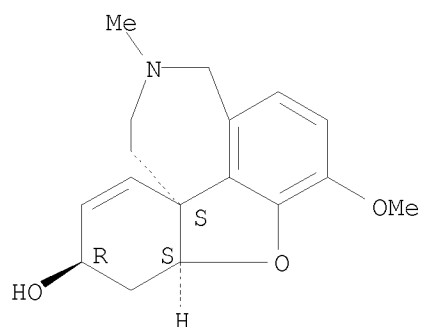
Absolute stereochemistry. Rotation (-).



RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

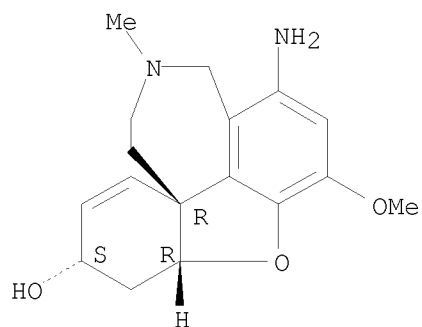
Absolute stereochemistry. Rotation (-).



RN 849370-90-7 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 5-amino-3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, (8aR,10S,12aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



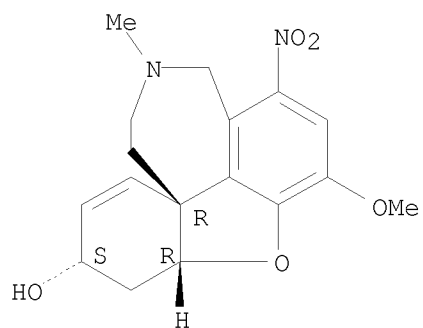
RN 849371-21-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-1-nitro-, (4aR,6S,8aR)- (CA INDEX NAME)



10/573,517

Absolute stereochemistry. Rotation (+).



L61 ANSWER 2 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1469363 CAPLUS

DOCUMENT NUMBER: 148:93272

TITLE: Combination of a cholinesterase inhibitor and a compound with 5-HT6 receptor affinity, and therapeutic use

INVENTOR(S): Codony-Soler, Xavier; Buschmann, Helmut Henrich

PATENT ASSIGNEE(S): Laboratorios Del Dr. Esteve, S.A., Spain

SOURCE: PCT Int. Appl., 254pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007147883	A1	20071227	WO 2007-EP56234	20070622
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: EP 2006-384012 A 20060623

OTHER SOURCE(S): MARPAT 148:93272

AB The invention discloses a combination comprising at least one compound with 5-HT6 receptor affinity, and at least one cholinesterase inhibitor, as well as a medicament comprising the combination, and the use of the combination for the manufacture of a medicament.

IT 273930-29-3 273930-29-3D, enantiomers and salts

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(SPH 1286; cholinesterase inhibitor combination with compound with 5-HT6 receptor affinity)

RN 273930-29-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, (4aR,6R,8aR)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

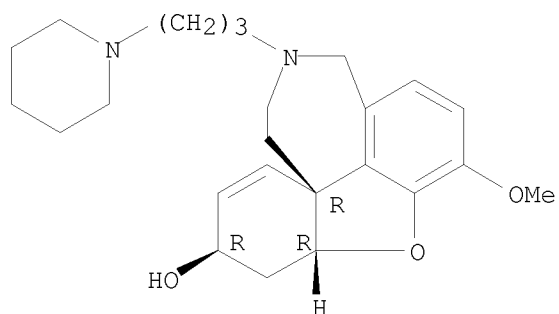
CM 1

CRN 273930-28-2

CMF C24 H34 N2 O3

Absolute stereochemistry.

10/573,517

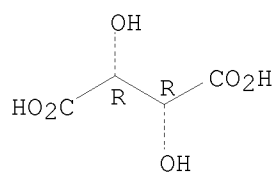


CM 2

CRN 87-69-4

CMF C4 H6 O6

Absolute stereochemistry.



RN 273930-29-3 CAPLUS

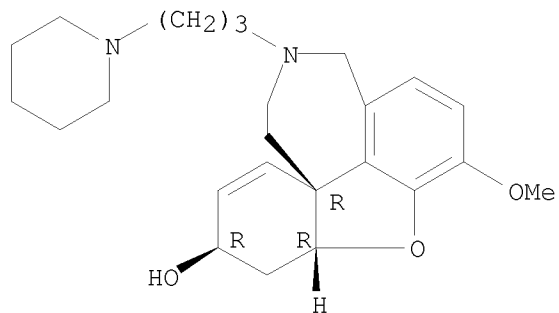
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, (4aR,6R,8aR)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 273930-28-2

CMF C24 H34 N2 O3

Absolute stereochemistry.

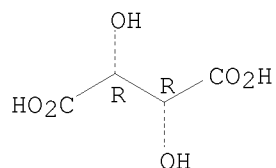


CM 2

10/573,517

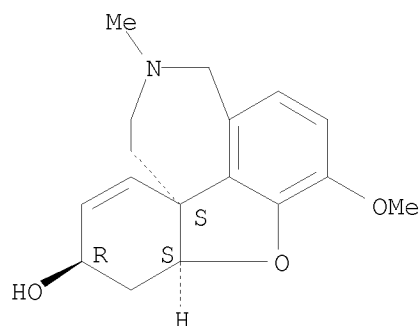
CRN 87-69-4  
CMF C4 H6 O6

Absolute stereochemistry.



IT 1953-04-4, Galantamine hydrobromide 1953-04-4D,  
Galantamine hydrobromide, enantiomers and salts 365571-13-7  
365571-13-7D, enantiomers and salts  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(cholinesterase inhibitor combination with compound with 5-HT<sub>6</sub> receptor  
affinity)  
RN 1953-04-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-  
methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

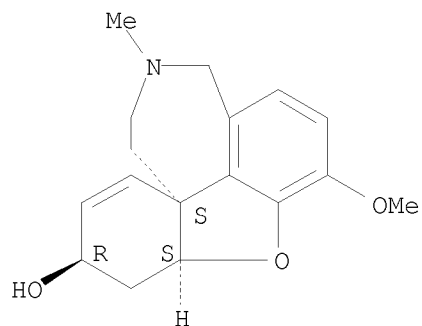


● HBr

RN 1953-04-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-  
methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517

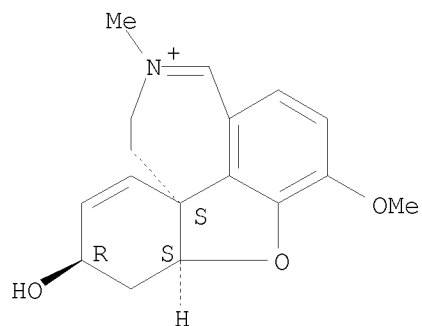


● HBr

RN 365571-13-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



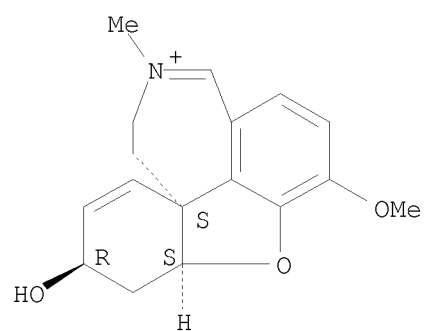
● Br<sup>-</sup>

RN 365571-13-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



REFERENCE COUNT:

10

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 3 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:564771 CAPLUS  
 DOCUMENT NUMBER: 146:507741  
 TITLE: Nanoparticles for protein drug delivery  
 INVENTOR(S): Sung, Hsing-Wen; Lin, Yu-Hsin; Tu, Hosheng  
 PATENT ASSIGNEE(S): Gp Medical, Inc., USA; National Tsing Hua University  
 SOURCE: U.S. Pat. Appl. Publ., 32 pp., Cont.-in-part of U.S.  
 Ser. No. 284,734.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 10  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070116771	A1	20070524	US 2006-398145	20060405
US 7381716	B2	20080603		
US 20060147539	A1	20060706	US 2005-284734	20051121
US 7282194	B2	20071016		
PRIORITY APPLN. INFO.:			US 2005-284734	A2 20051121
			US 2004-958864	A2 20041005
			US 2005-29082	A2 20050104

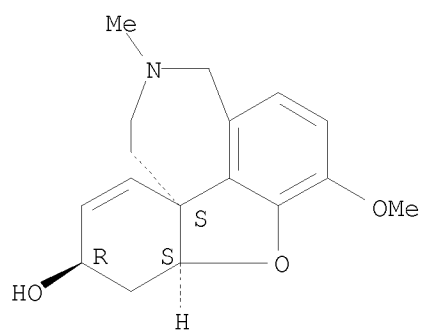
AB The invention discloses the nanoparticles composed of chitosan, polyglutamic acid, and at least one bioactive agent characterized with a pos. surface charge and their enhanced permeability for paracellular drug delivery. The particle size and the zeta potential value of the prepared nanoparticles were mainly determined by the relative amount of the local concentration of  $\gamma$ -PGA in the added solution to the surrounding concentration of CS in the sink solution. At a fixed concentration of CS, an increase in the  $\gamma$ -PGA concentration allowed  $\gamma$ -PGA mols. interacting with more CS mols., and thus formed a larger size of nanoparticles.

IT 5072-47-9, Galantamine hydrochloride  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nanoparticles for protein drug delivery)

RN 5072-47-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)  
 Absolute stereochemistry. Rotation (-).

10/573,517



● HCl

REFERENCE COUNT:

20

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L61 ANSWER 4 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:409395 CAPLUS

DOCUMENT NUMBER: 146:422186

TITLE: Preparation of cholinergic enhancers with improved blood-brain barrier permeability for the treatment of diseases accompanied by cognitive impairment

INVENTOR(S): Maelicke, Alfred

PATENT ASSIGNEE(S): Galantos Pharma G.m.b.H., Germany

SOURCE: PCT Int. Appl., 82pp.

CODEN: PIXXD2

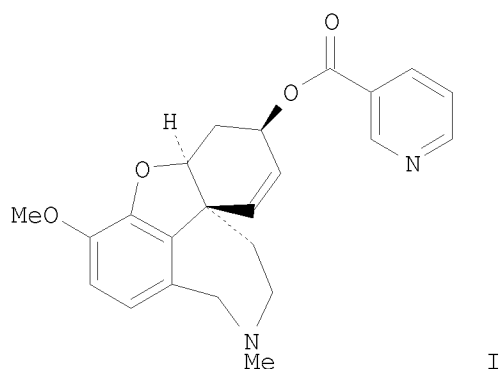
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007039138	A1	20070412	WO 2006-EP9220	20060922
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1777222	A1	20070425	EP 2005-20721	20050922
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
CA 2623114	A1	20070412	CA 2006-2623114	20060922
EP 1940817	A1	20080709	EP 2006-792225	20060922
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
US 20070213318	A1	20070913	US 2007-683148	20070307
PRIORITY APPLN. INFO.:			EP 2005-20721	A 20050922
			US 2006-780243P	P 20060307
			WO 2006-EP9220	W 20060922
OTHER SOURCE(S):	MARPAT 146:422186			
GI				



AB The present invention refers to compds., e.g. galanthamine derivative I, that, in addition to enhancing the sensitivity to acetylcholine and choline, and their exogenous agonists, of neuronal cholinergic receptors and/or acting as cholinesterase inhibitors and/or neuroprotective agents, have enhanced blood-brain barrier permeability in comparison to their parent compds. The compds. are derived (either formally by their chemical structure or directly by chemical synthesis) from natural compds. belonging to the class of amaryllidaceae alkaloids e.g. galanthamine, narwedine and lycoramine, or from metabolites of said compds. The compds. of the present invention can either interact as such with their target mols., or they can act as "pro-drugs", in the sense that after reaching their target regions in the body they are converted by hydrolysis or enzymic attack to the original parent compound and react as such with their target mols., or both. Compds. of this invention may be used as medicaments.

IT 357-70-0, (-)-Galanthamine

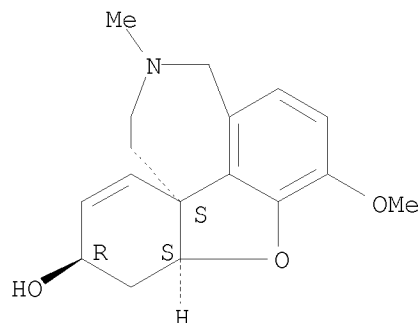
RL: PAC (Pharmacological activity); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(synthesis of galanthamine derivs. as cholinergic enhancers for treating diseases accompanied by cognitive impairment)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 934162-90-0P 934162-91-1P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic

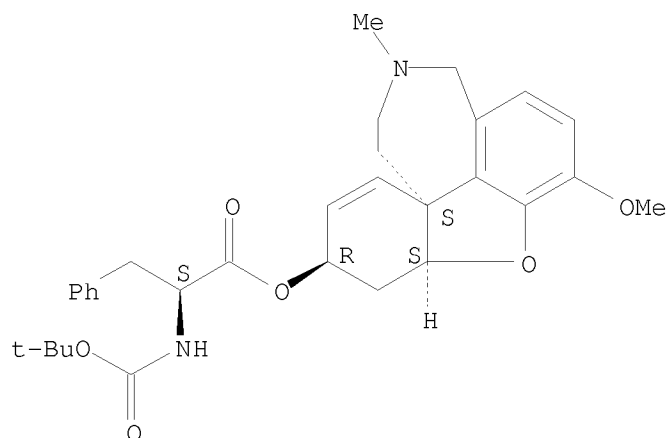
10/573,517

preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(synthesis of galanthamine derivs. as cholinergic enhancers for treating diseases accompanied by cognitive impairment)

RN 934162-90-0 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

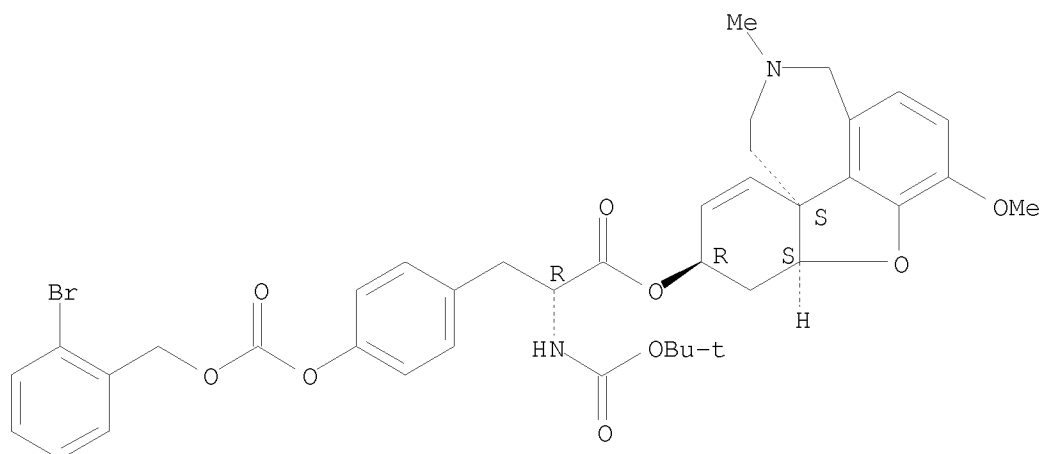
Absolute stereochemistry.



RN 934162-91-1 CAPLUS

CN D-Tyrosine, O-[[ (2-bromophenyl)methoxy]carbonyl]-N-[(1,1-dimethylethoxy)carbonyl]-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.



IT 41303-52-0P 138963-47-0P 138963-48-1P  
183626-04-2P 198987-71-2P 198988-34-0P  
464189-56-8P 464189-58-0P 849232-39-9P

849232-43-5P 849232-44-6P 909134-35-6P  
 934162-71-7P 934162-72-8P 934162-73-9P  
 934162-83-1P 934162-86-4P 934162-89-7P  
 934162-92-2P 934162-93-3P 934162-94-4P  
 934162-95-5P 934162-96-6P 934162-97-7P  
 934162-98-8P 934162-99-9P 934163-01-6P  
 934163-02-7P 934163-04-9P 934163-06-1P  
 934163-08-3P 934163-12-9P 934163-15-2P  
 934163-16-3P 934163-18-5P 934163-19-6P  
 934163-21-0P 934163-24-3P 934163-32-3P  
 934163-40-3P 934163-41-4P 934163-42-5P  
 934163-44-7P 934163-45-8P 934163-46-9P  
 934163-49-2P 934163-51-6P 934163-52-7P  
 934163-53-8P 934163-54-9P 934163-55-0P  
 934163-56-1P 934163-57-2P 934163-59-4P  
 934163-60-7P 934163-61-8P 934163-62-9P  
 934163-63-0P 934231-91-1P 934231-92-2P  
 934231-93-3P 934231-95-5P 934231-96-6P  
 934231-97-7P 934231-98-8P 934231-99-9P  
 934232-00-5P

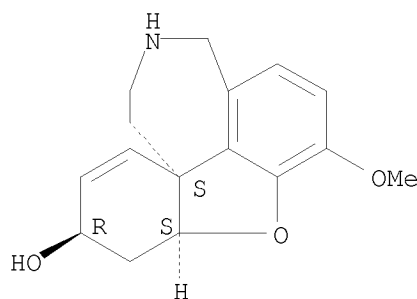
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of galanthamine derivs. as cholinergic enhancers for treating diseases accompanied by cognitive impairment)

RN 41303-52-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

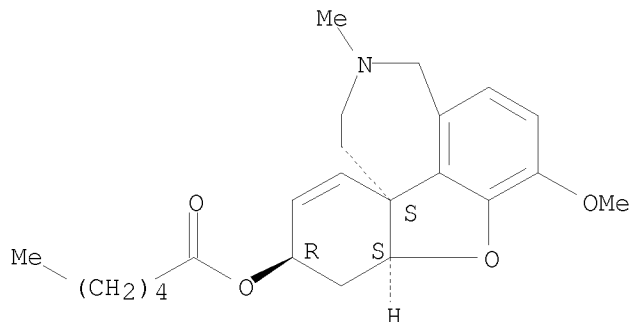


RN 138963-47-0 CAPLUS

CN Hexanoic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

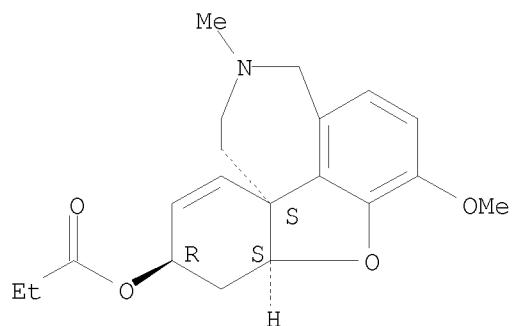
10/573,517



RN 138963-48-1 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 10-propanoate, (8aS,10R,12aS)- (CA INDEX NAME)

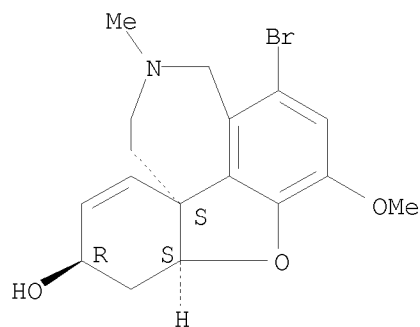
Absolute stereochemistry.



RN 183626-04-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

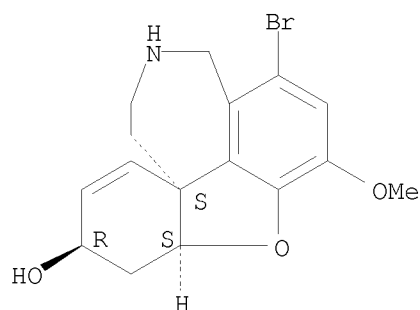


RN 198987-71-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

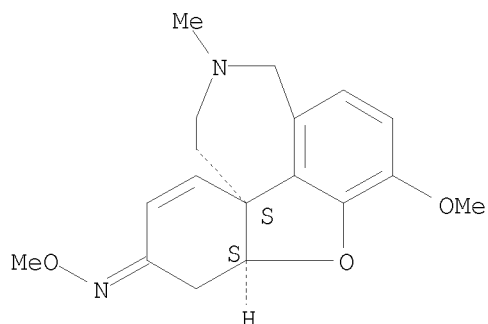
10/573,517



RN 198988-34-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-one, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, O-methyloxime, (4aS,8aS)- (CA INDEX NAME)

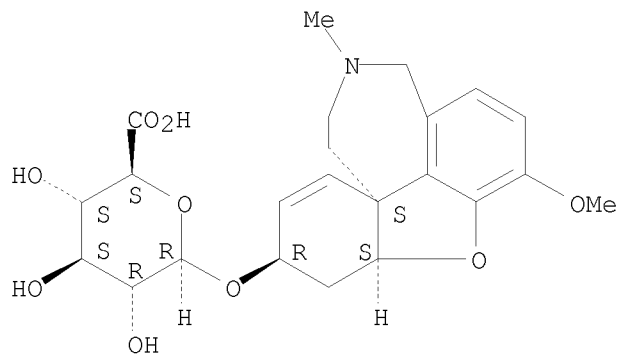
Absolute stereochemistry.  
Double bond geometry unknown.



RN 464189-56-8 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl (CA INDEX NAME)

Absolute stereochemistry.



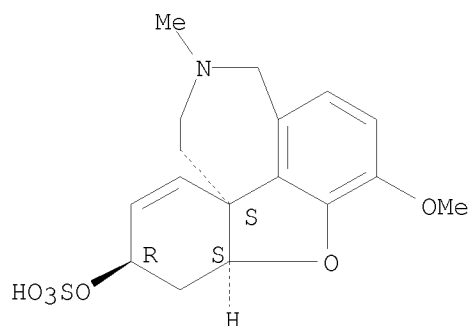
RN 464189-58-0 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-

10/573,517

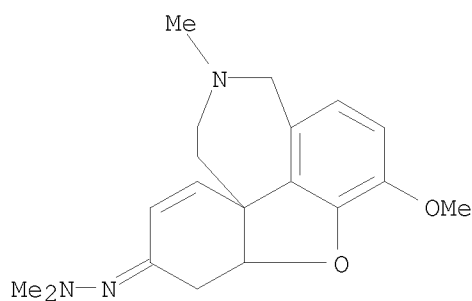
methoxy-3-methyl-, 10-(hydrogen sulfate), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



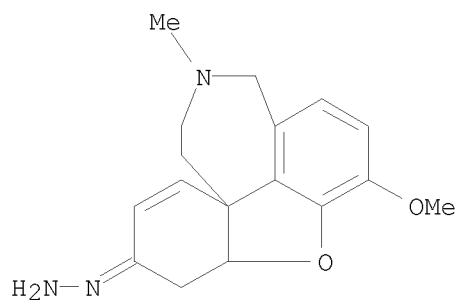
RN 849232-39-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 2-methylhydrazone (CA INDEX NAME)



RN 849232-43-5 CAPLUS

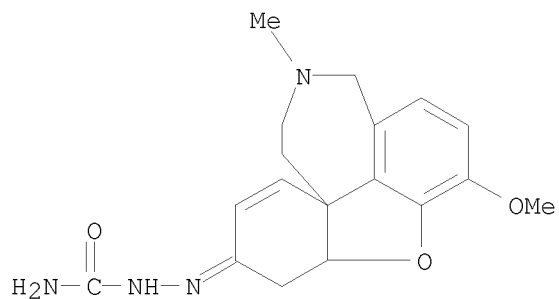
CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, hydrazone (CA INDEX NAME)



RN 849232-44-6 CAPLUS

CN Hydrazinecarboxamide, 2-(1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-ylidene)- (CA INDEX NAME)

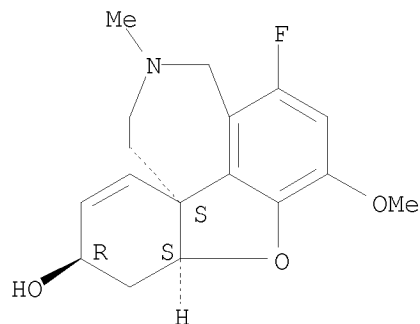
10/573,517



RN 909134-35-6 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 5-fluoro-3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

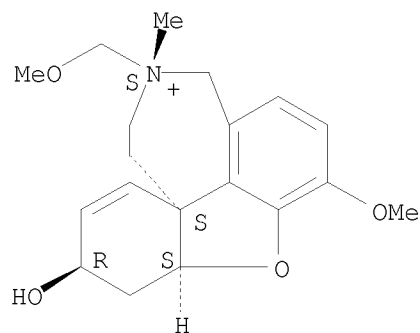
Relative stereochemistry.



RN 934162-71-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-(methoxymethyl)-11-methyl-, chloride (1:1), (4aS,6R,8aS,11S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● Cl<sup>-</sup>

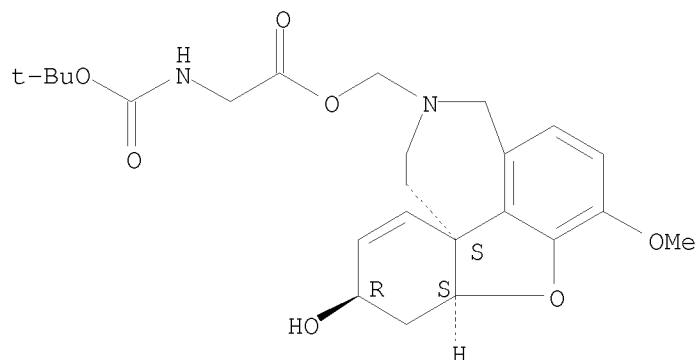


10/573,517

RN 934162-72-8 CAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, [(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]methyl ester (CA INDEX NAME)

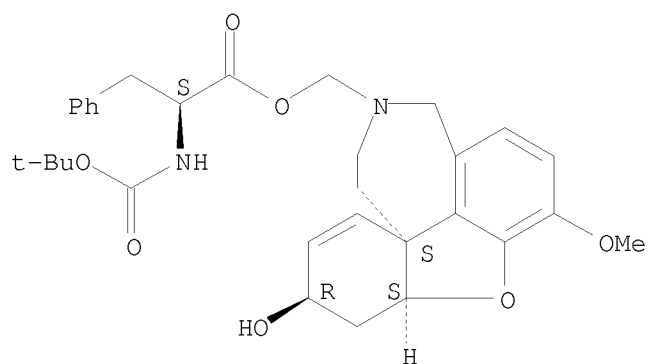
Absolute stereochemistry.



RN 934162-73-9 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-, [(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]methyl ester (CA INDEX NAME)

Absolute stereochemistry.

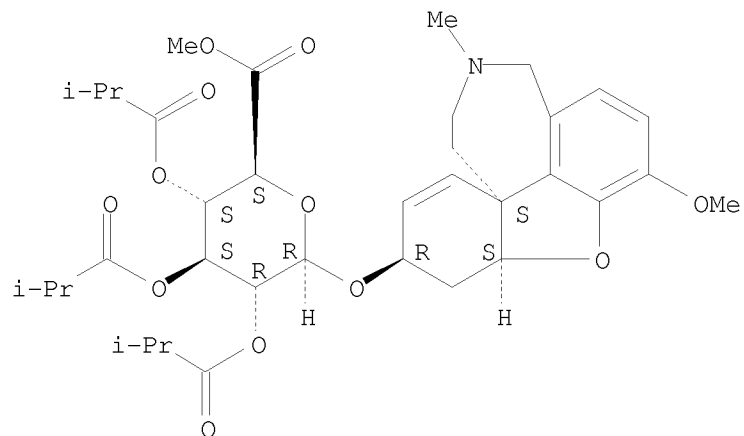


RN 934162-83-1 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl, methyl ester, 2,3,4-tris(2-methylpropanoate) (CA INDEX NAME)

Absolute stereochemistry.

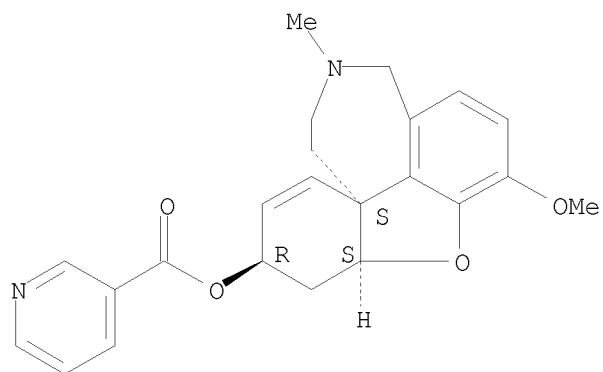
10/573,517



RN 934162-86-4 CAPLUS

CN 3-Pyridinecarboxylic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

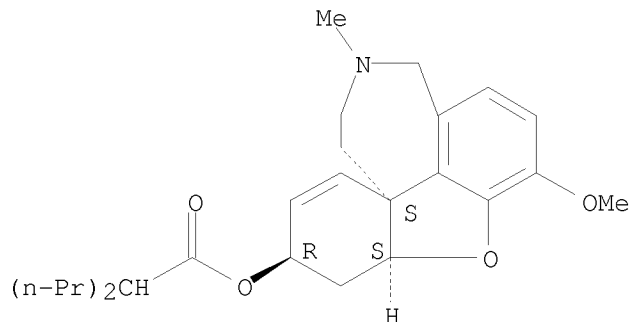


RN 934162-89-7 CAPLUS

CN Pentanoic acid, 2-propyl-, (8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester (CA INDEX NAME)

Absolute stereochemistry.

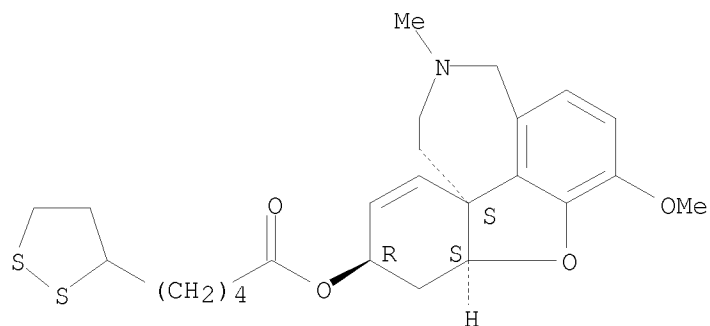
10/573,517



RN 934162-92-2 CAPLUS

CN 1,2-Dithiolane-3-pentanoic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

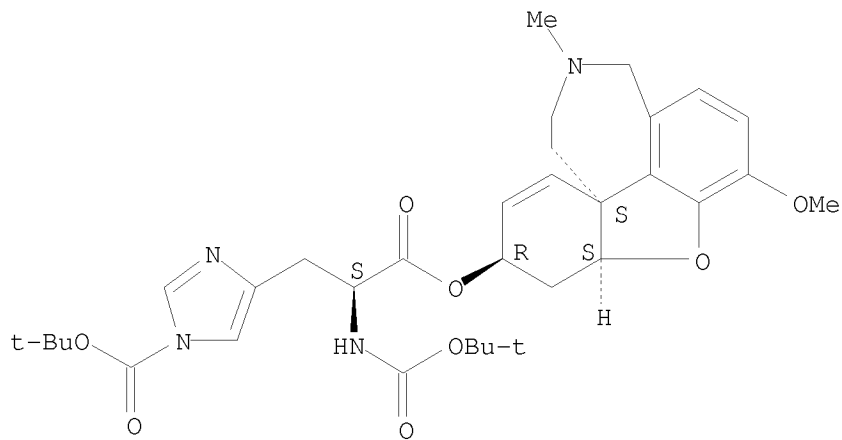
Absolute stereochemistry.



RN 934162-93-3 CAPLUS

CN L-Histidine, N,1-bis[(1,1-dimethylethoxy)carbonyl]-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

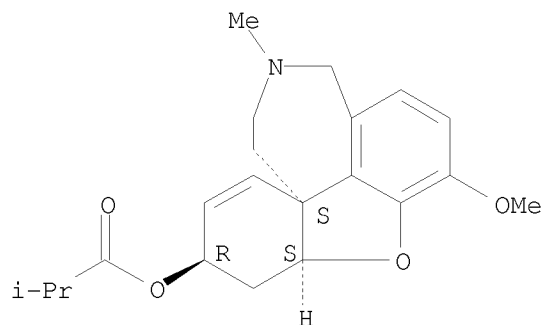


10/573,517

RN 934162-94-4 CAPLUS

CN Propanoic acid, 2-methyl-, (8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester (CA INDEX NAME)

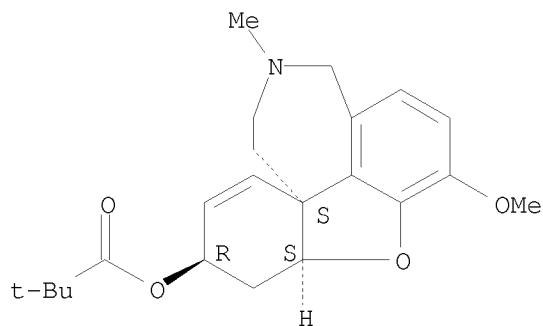
Absolute stereochemistry.



RN 934162-95-5 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

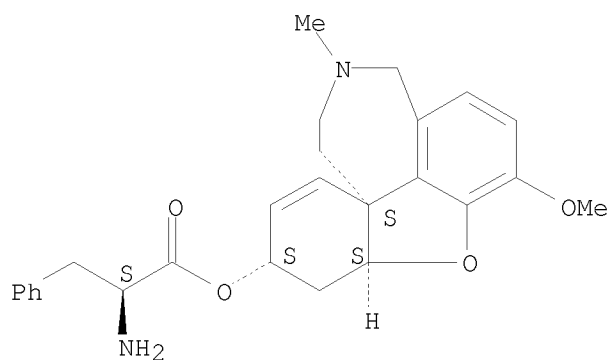


RN 934162-96-6 CAPLUS

CN L-Phenylalanine, (8aS,10S,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester (CA INDEX NAME)

Absolute stereochemistry.

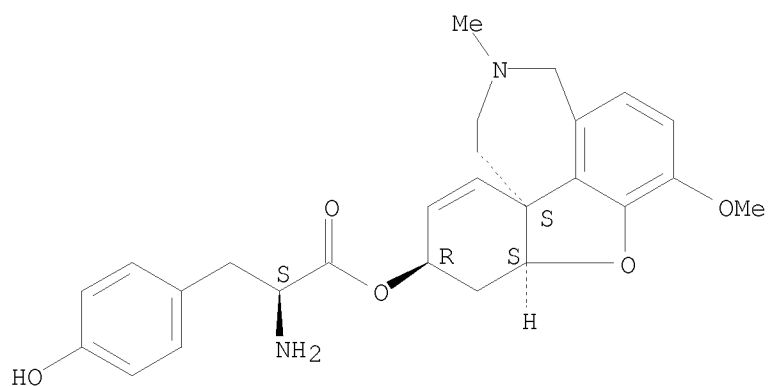
10/573,517



RN 934162-97-7 CAPLUS

CN L-Tyrosine, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

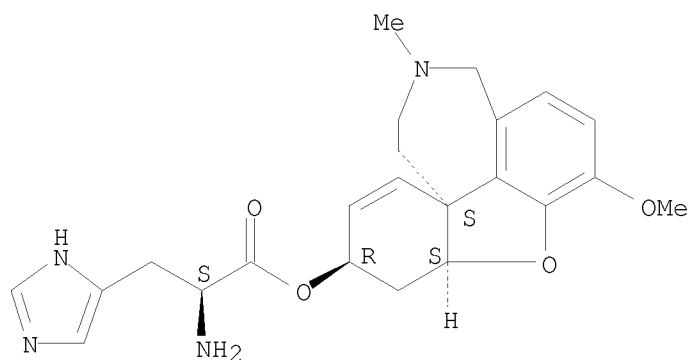


RN 934162-98-8 CAPLUS

CN L-Histidine, (8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester, hydrochloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.

10/573,517

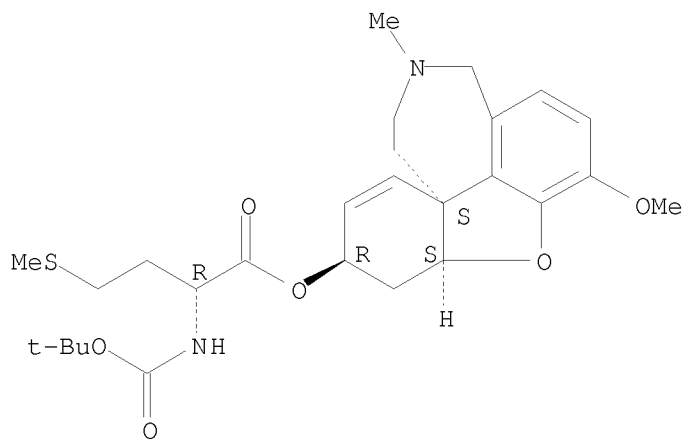


● HCl

RN 934162-99-9 CAPLUS

CN D-Methionine, N-[(1,1-dimethylethoxy)carbonyl]-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

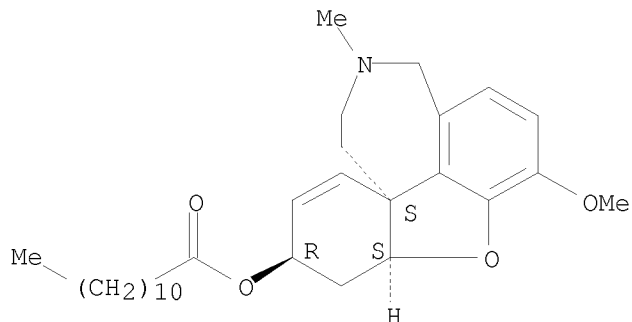


RN 934163-01-6 CAPLUS

CN Dodecanoic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

10/573,517

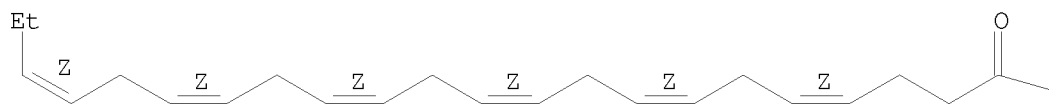


RN 934163-02-7 CAPLUS

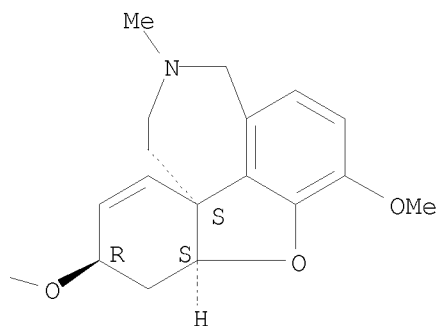
CN 4,7,10,13,16,19-Docosahexaenoic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, (4Z,7Z,10Z,13Z,16Z,19Z)- (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



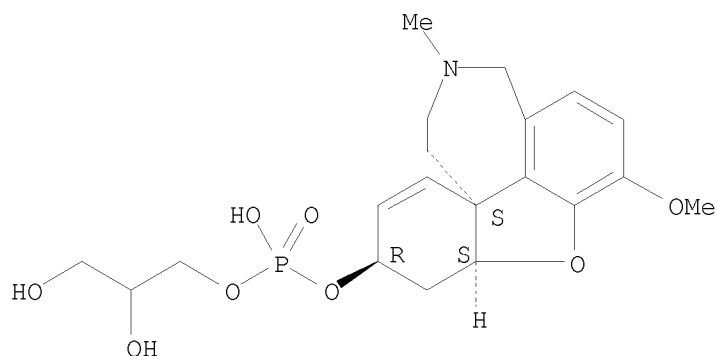
RN 934163-04-9 CAPLUS

CN Phosphoric acid, mono(2,3-dihydroxypropyl) mono[(4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-

10/573,517

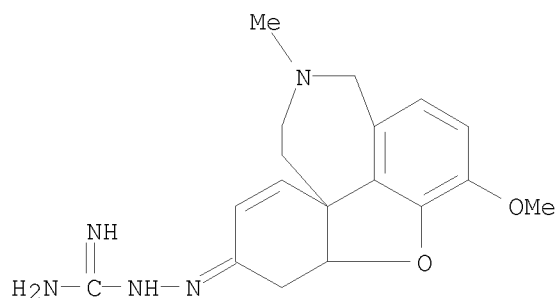
ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry.



RN 934163-06-1 CAPLUS

CN Hydrazinecarboximidamide, 2-(4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ylidene)- (CA INDEX NAME)

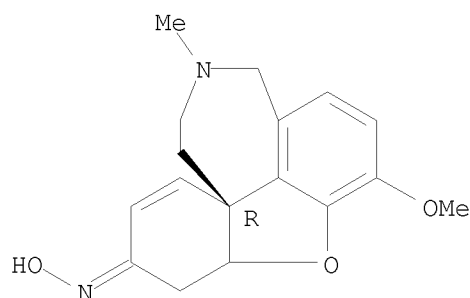


RN 934163-08-3 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, oxime, (12aR)- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.



RN 934163-12-9 CAPLUS

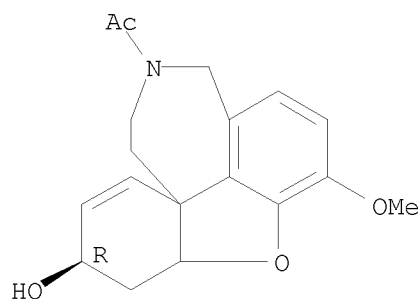
CN Ethanone, 1-[(6R)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-



10/573,517

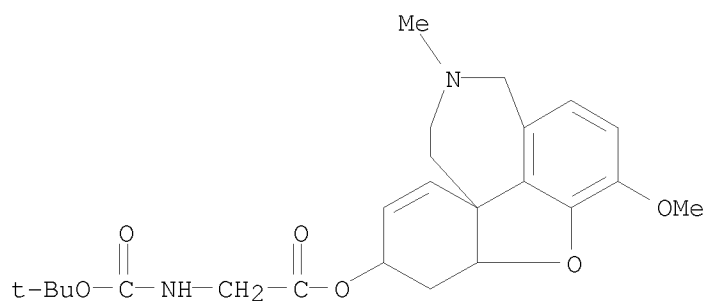
benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl)- (CA INDEX NAME)

Absolute stereochemistry.



RN 934163-15-2 CAPLUS

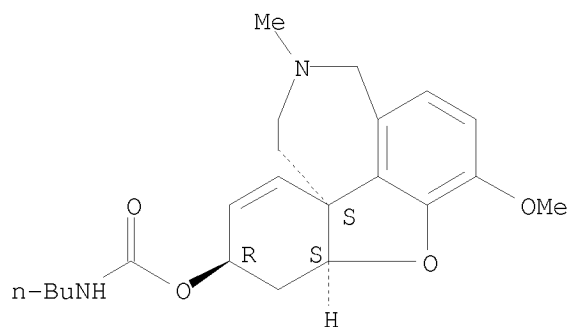
CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)



RN 934163-16-3 CAPLUS

CN Carbamic acid, N-butyl-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

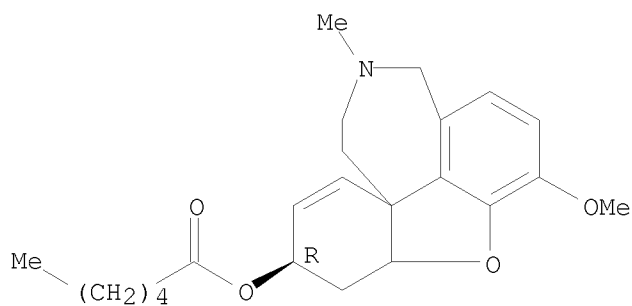


RN 934163-18-5 CAPLUS

CN Hexanoic acid, (6R)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

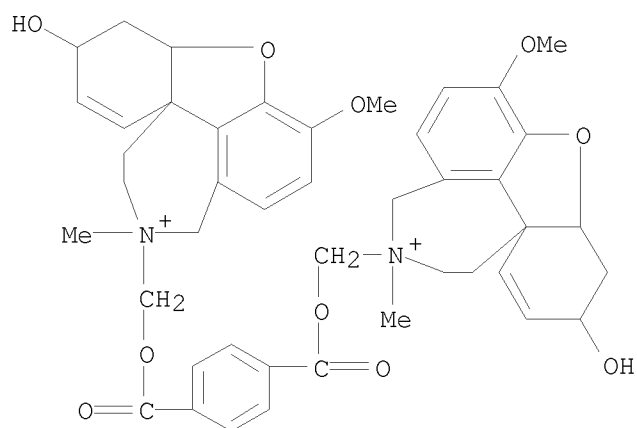
10/573,517

Absolute stereochemistry.



RN 934163-19-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11,11'-[1,4-phenylenebis(carboxymethylene)]bis[4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, chloride (1:2) (CA INDEX NAME)



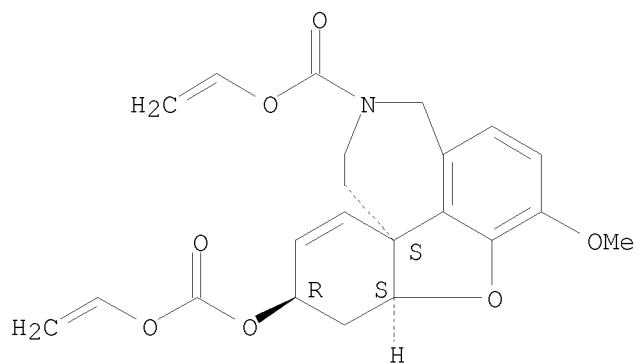
● 2 Cl<sup>-</sup>

RN 934163-21-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid, 6-[[ethenyloxy]carbonyloxy]-4a,5,9,10-tetrahydro-3-methoxy-, ethenyl ester, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

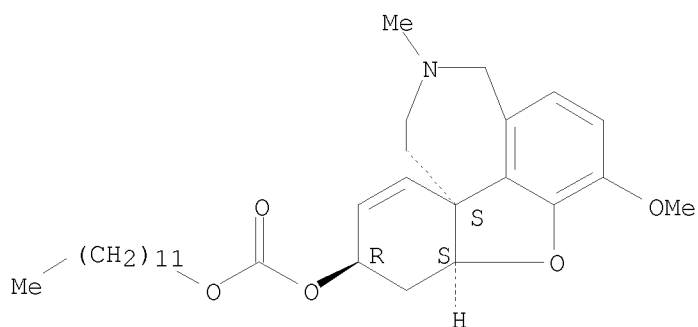
10/573,517



RN 934163-24-3 CAPLUS

CN Carbonic acid, dodecyl (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

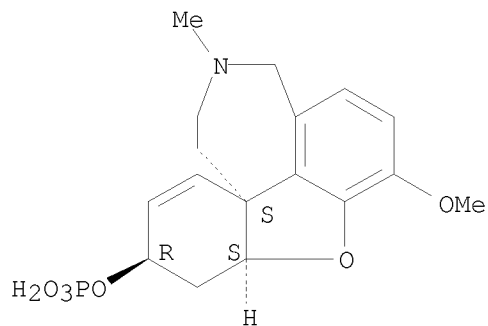
Absolute stereochemistry.



RN 934163-32-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 6-(dihydrogen phosphate), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

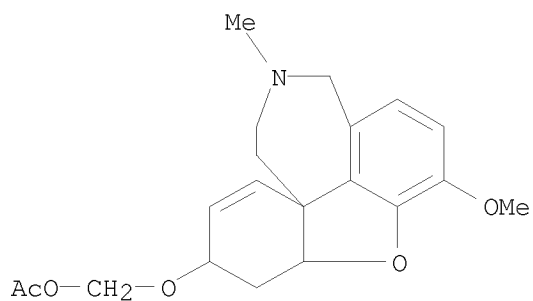


RN 934163-40-3 CAPLUS

CN Methanol, 1-[(4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-

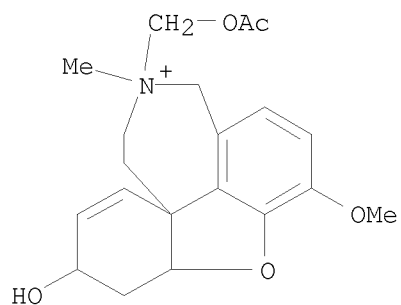
10/573,517

benzofuro[3a,3,2-ef][2]benzazepin-6-yl)oxy]-, 1-acetate (CA INDEX NAME)



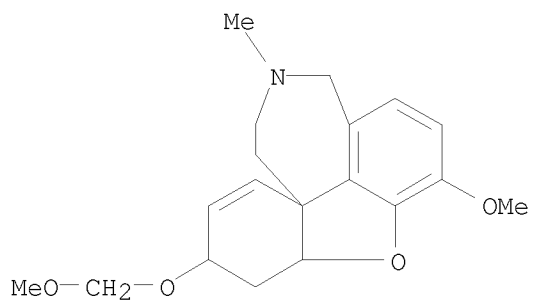
RN 934163-41-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 3-[(acetyloxy)methyl]-  
1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-, chloride (1:1) (CA  
INDEX NAME)



RN 934163-42-5 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine, 1,2,3,4,8a,9-hexahydro-7-methoxy-  
10-(methoxymethoxy)-3-methyl- (CA INDEX NAME)

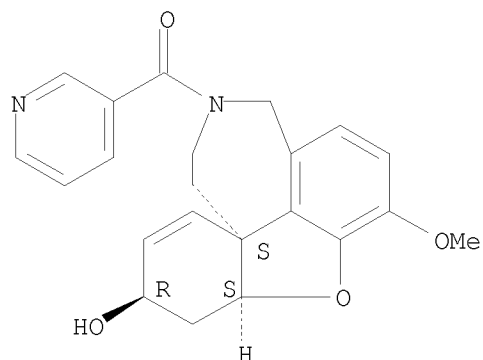


10/573,517

RN 934163-44-7 CAPLUS

CN Methanone, 3-pyridinyl[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

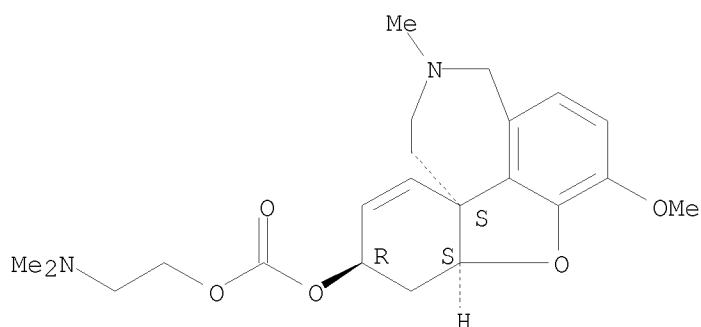
Absolute stereochemistry.



RN 934163-45-8 CAPLUS

CN Carbonic acid, 2-(dimethylamino)ethyl (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

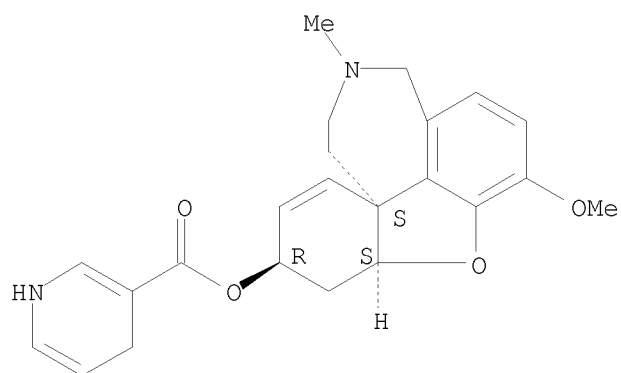


RN 934163-46-9 CAPLUS

CN 3-Pyridinecarboxylic acid, 1,4-dihydro-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

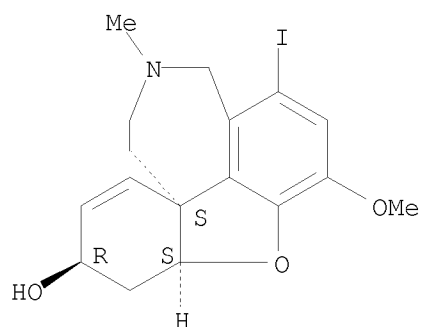
10/573,517



RN 934163-49-2 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3,4,8a,9-tetrahydro-5-iodo-7-methoxy-3-methyl-, (8aS,10R,12aS)- (CA INDEX NAME)

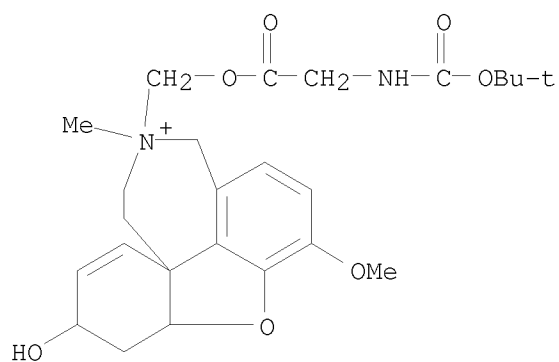
Absolute stereochemistry.



RN 934163-51-6 CAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, (4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepinium-11-yl)methyl ester, chloride (1:1) (CA INDEX NAME)

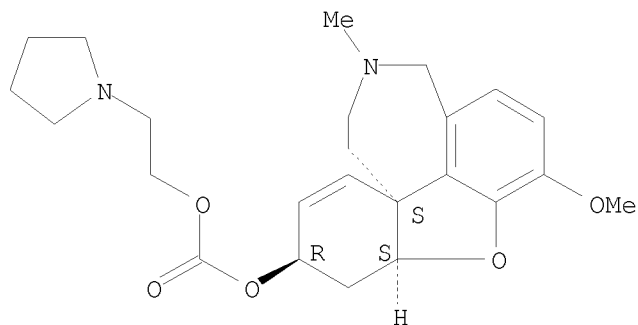
10/573,517



RN 934163-52-7 CAPLUS

CN Carbonic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl 2-(1-pyrrolidinyl)ethyl ester (CA INDEX NAME)

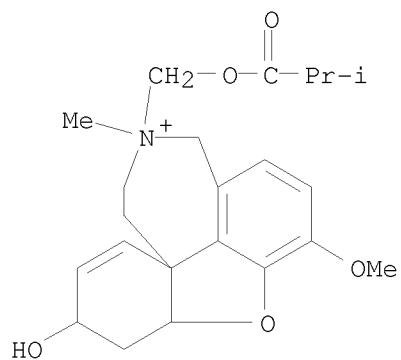
Absolute stereochemistry.



RN 934163-53-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-3-[(2-methyl-1-oxopropoxy)methyl]- (CA INDEX NAME)

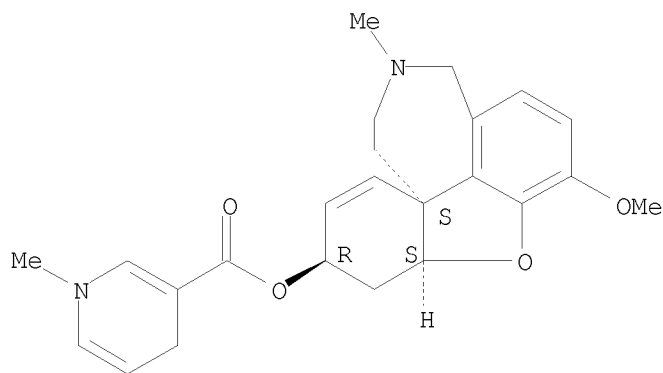
10/573,517



RN 934163-54-9 CAPLUS

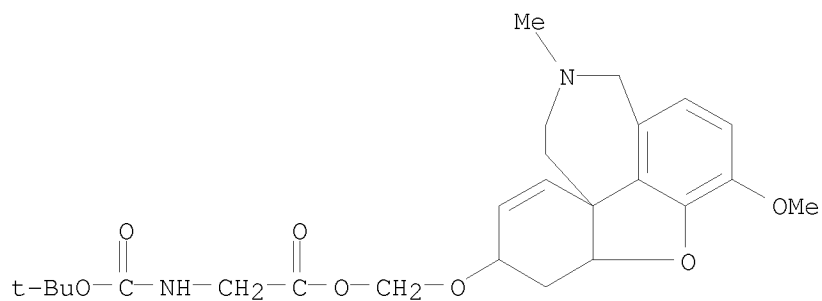
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-1-methyl-, (8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 934163-55-0 CAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, [(4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl)oxy]methyl ester (CA INDEX NAME)



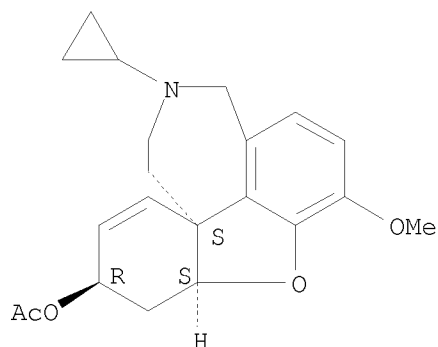


10/573,517

RN 934163-56-1 CAPLUS

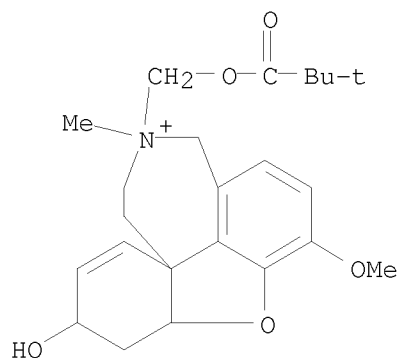
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-cyclopropyl-4a,5,9,10,11,12-hexahydro-3-methoxy-, 6-acetate, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 934163-57-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-[(2,2-dimethyl-1-oxopropoxy)methyl]-4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, chloride (1:1) (CA INDEX NAME)

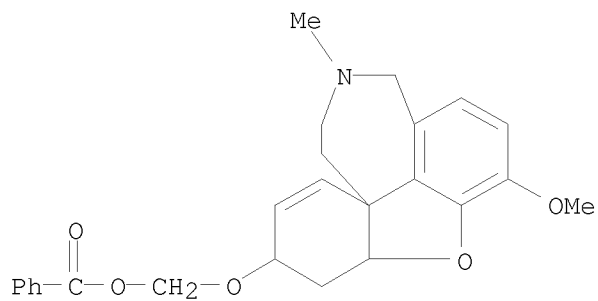


● Cl<sup>-</sup>

RN 934163-59-4 CAPLUS

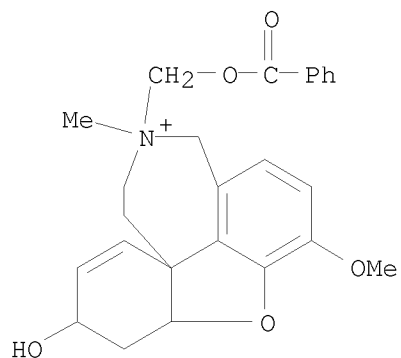
CN Methanol, 1-[(4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl)oxy]-, 1-benzoate (CA INDEX NAME)

10/573,517



RN 934163-60-7 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 2-[(benzoyloxy)methyl]-  
1,2,3,4,8,8a-hexahydro-7-hydroxy-10-methoxy-2-methyl-, chloride (1:1) (CA  
INDEX NAME)



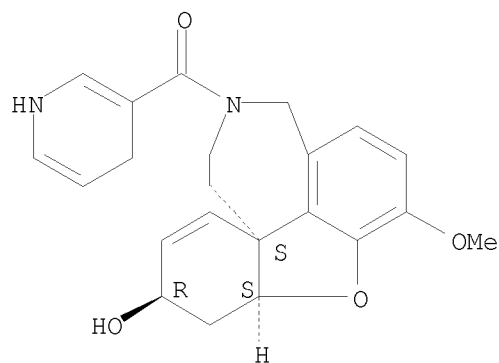
● Cl<sup>-</sup>

RN 934163-61-8 CAPLUS

CN Methanone, (1,4-dihydro-3-pyridinyl)[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-  
hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA  
INDEX NAME)

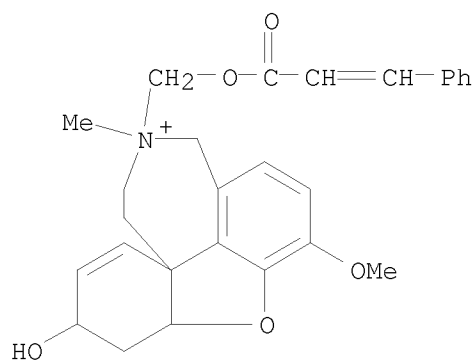
Absolute stereochemistry.

10/573,517



RN 934163-62-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[[ (1-oxo-3-phenyl-2-propen-1-yl)oxy]methyl]-, chloride (1:1) (CA INDEX NAME)



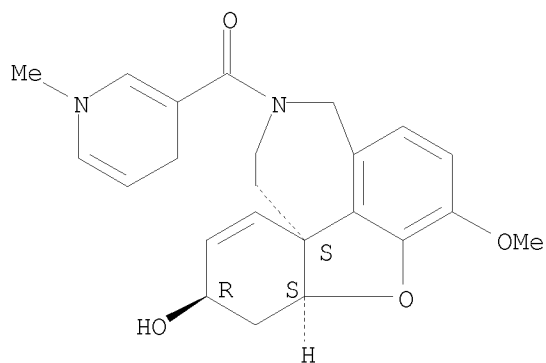
● Cl<sup>-</sup>

RN 934163-63-0 CAPLUS

CN Methanone, (1,4-dihydro-1-methyl-3-pyridinyl)[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

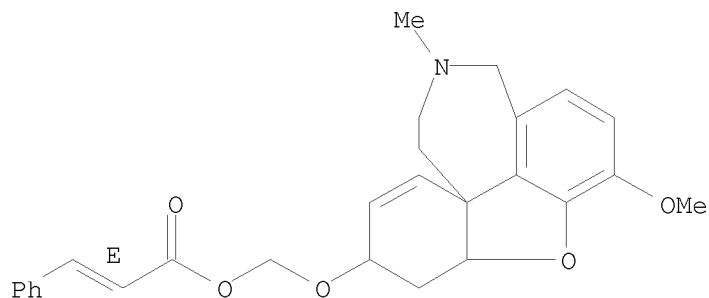
10/573,517



RN 934231-91-1 CAPLUS

CN 2-Propenoic acid, 3-phenyl-, [(4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl)oxy]methyl ester, (2E)-(CA INDEX NAME)

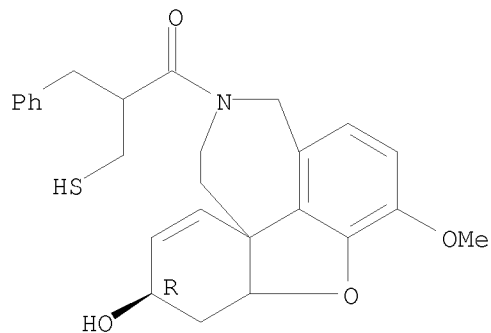
Double bond geometry as shown.



RN 934231-92-2 CAPLUS

CN 1-Propanone, 2-(mercaptomethyl)-3-phenyl-1-[(6R)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

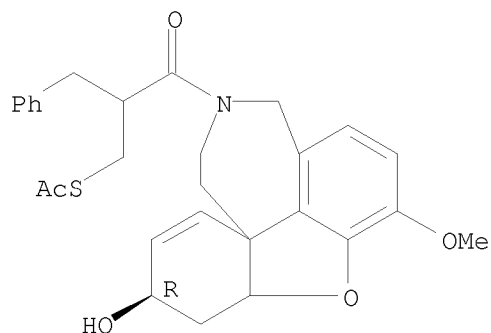


RN 934231-93-3 CAPLUS

10/573,517

CN Ethanethioic acid, S-[3-oxo-2-(phenylmethyl)-3-[(10R)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]propyl] ester (CA INDEX NAME)

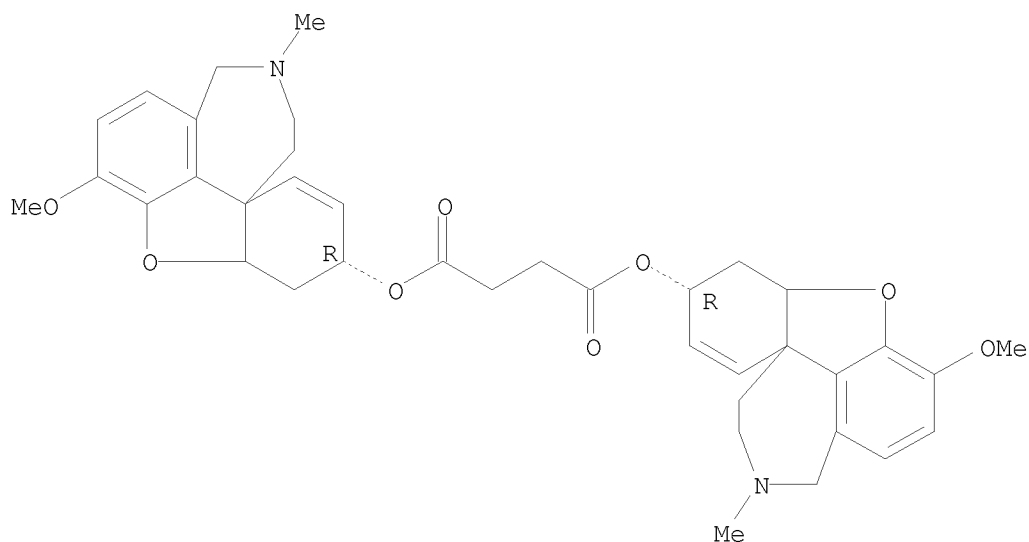
Absolute stereochemistry.



RN 934231-95-5 CAPLUS

CN Butanedioic acid, 1,4-bis[(6R)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry.

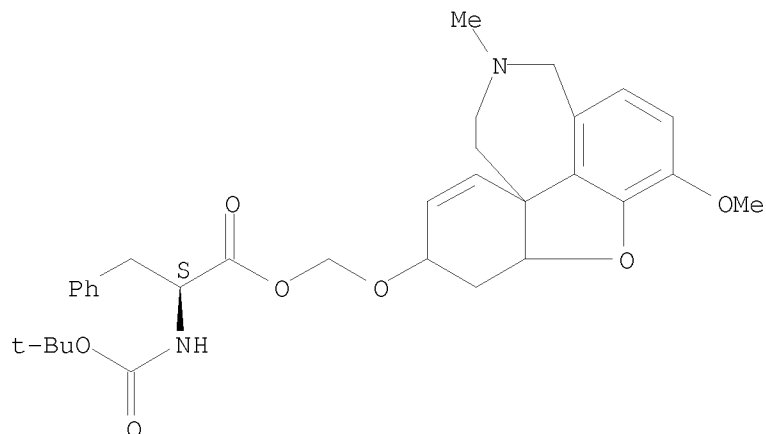


RN 934231-96-6 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-, [(4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl)oxy]methyl ester (CA INDEX NAME)

Absolute stereochemistry.

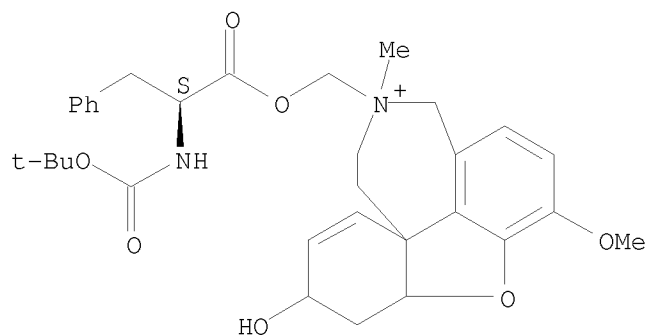
10/573,517



RN 934231-97-7 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-, (4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepinium-11-yl)methyl ester, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.



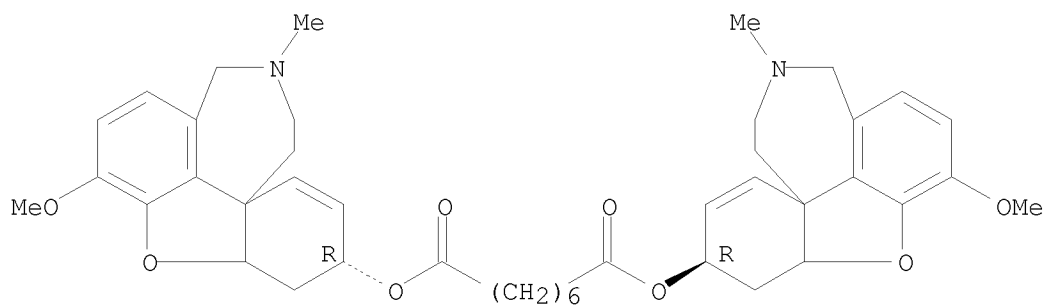
● Cl<sup>-</sup>

RN 934231-98-8 CAPLUS

CN Octanedioic acid, 1,8-bis[(6R)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry.

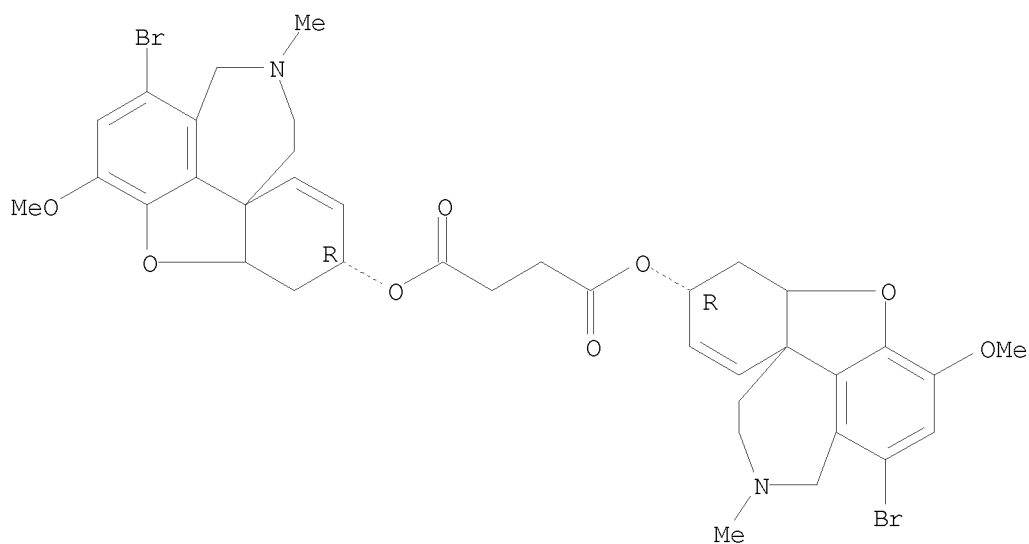
10/573,517



RN 934231-99-9 CAPLUS

CN Butanedioic acid, 1,4-bis[(6R)-1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry.

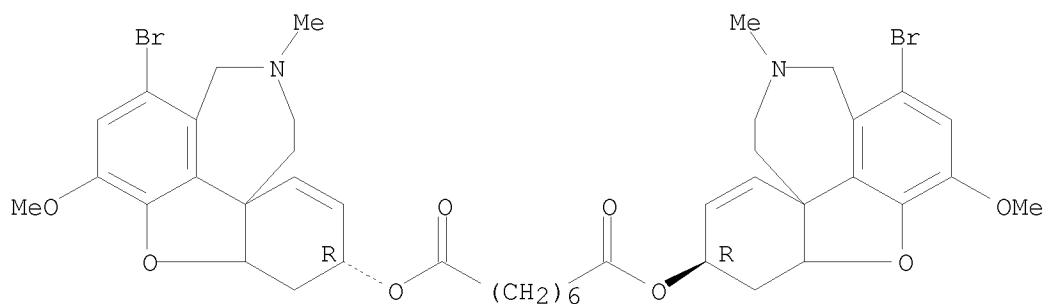


RN 934232-00-5 CAPLUS

CN Octanedioic acid, 1,8-bis[(6R)-1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

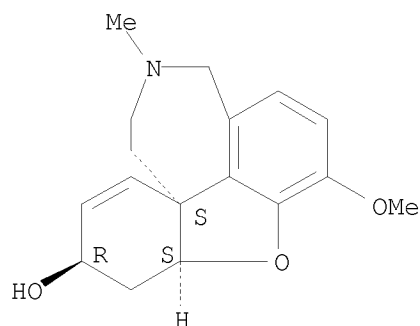
Absolute stereochemistry.

10/573,517



IT 1953-04-4, Galanthamine hydrobromide 3891-74-5,  
 N-Methylgalanthaminium iodide 41303-74-6, Norgalanthamine  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (synthesis of galanthamine derivs. as cholinergic enhancers for  
 treating diseases accompanied by cognitive impairment)  
 RN 1953-04-4 CAPLUS  
 CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-  
 methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



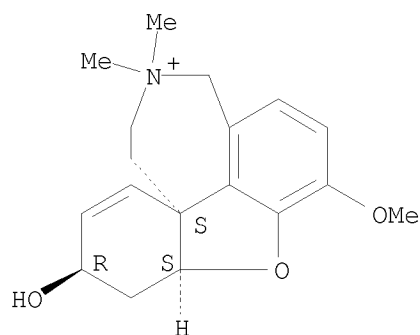
● HBr

RN 3891-74-5 CAPLUS  
 CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 1,2,3,4,8,8a-hexahydro-7-hydroxy-  
 10-methoxy-2,2-dimethyl-, iodide (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



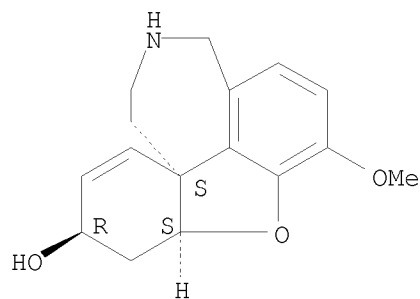
10/573,517



RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 198987-91-6P 934162-83-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

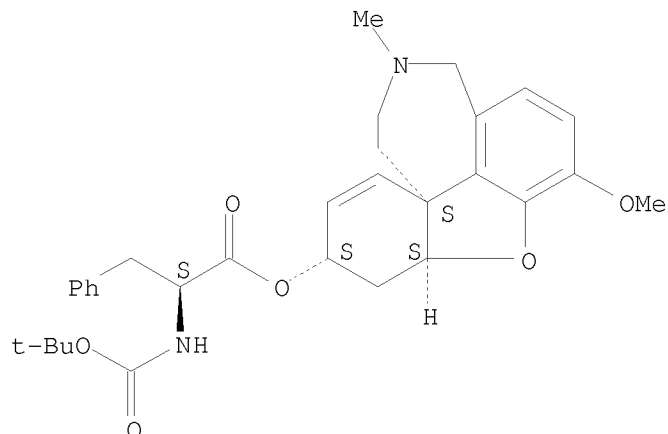
(synthesis of galanthamine derivs. as cholinergic enhancers for treating diseases accompanied by cognitive impairment)

RN 198987-91-6 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-, (4aS,6S,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

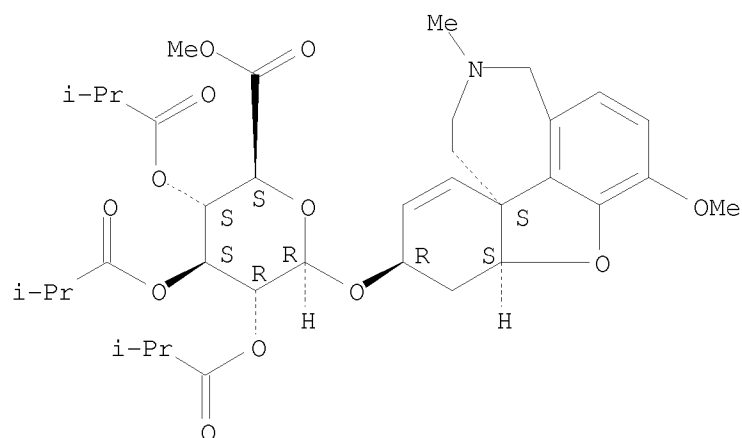
10/573,517



RN 934162-83-1 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl, methyl ester, 2,3,4-tris(2-methylpropanoate) (CA INDEX NAME)

Absolute stereochemistry.



IT 464189-56-8P 934162-87-5P

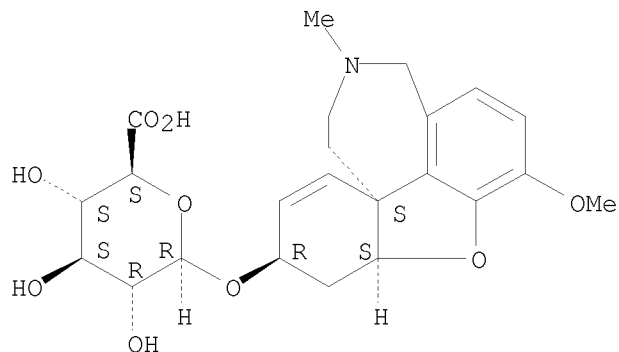
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of galanthamine derivs. as cholinergic enhancers for  
treating diseases accompanied by cognitive impairment)

RN 464189-56-8 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl (CA INDEX NAME)

Absolute stereochemistry.

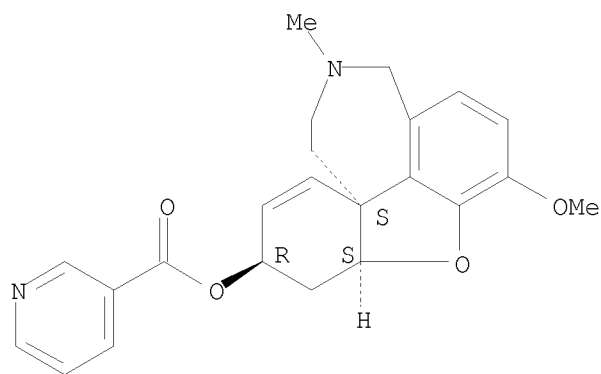
10/573,517



RN 934162-87-5 CAPLUS

CN 3-Pyridinecarboxylic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, hydrobromide (1:2) (CA INDEX NAME)

Absolute stereochemistry.



● 2 HBr

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 5 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:88422 CAPLUS

DOCUMENT NUMBER: 146:184629

TITLE: Syntheses and preparations of narwedine and related novel compounds

INVENTOR(S): Tojo Suarez, Gabriel; Duran Lopez, Ernesto; Bosch i Llado, Jordi

PATENT ASSIGNEE(S): Medichem, S. A., Spain

SOURCE: PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

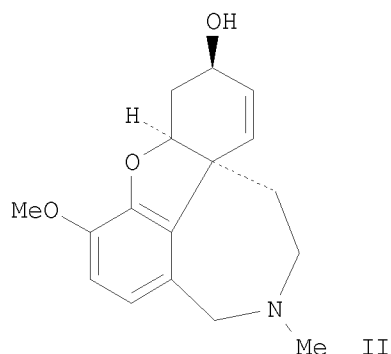
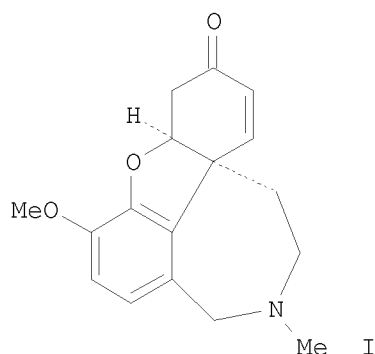
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

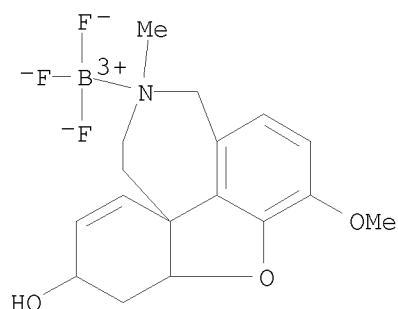
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007010412	A2	20070125	WO 2006-IB2875	20060503
WO 2007010412	A3	20070830		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
CA 2607811	A1	20070125	CA 2006-2607811	20060503
EP 1885727	A2	20080213	EP 2006-809025	20060503
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				

PRIORITY APPLN. INFO.:			
	US 2005-676964P	P	20050503
	US 2005-722015P	P	20050930
	WO 2006-IB2875	W	20060503

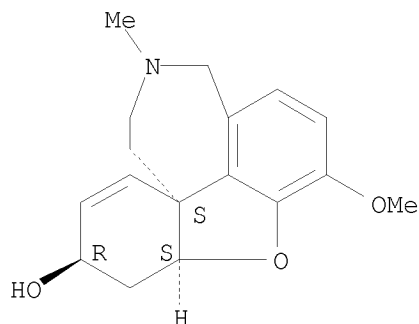
OTHER SOURCE(S): CASREACT 146:184629  
GI

- AB A process was disclosed for the preparation of (+)-narwedine, a useful starting material for producing (-)-galanthamine. (+)-Narwedine can be kinetically resolved to yield (-)-narwedine (I), the biogenic precursor of (-)-galanthamine (II). This invention further included processes for preparing (-)-galanthamine and (-)-galanthamine hydrobromide, as well as related novel compds.
- IT 921598-98-3P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (synthesis of narwedine and related galanthamine alkaloids)
- RN 921598-98-3 CAPLUS
- CN Boron, trifluoro[(4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol-κN11]-, (T-4)- (CA INDEX NAME)



- IT 357-70-0P, (-)-Galanthamine 1953-04-4P, (-)-Galanthamine hydrobromide  
 RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis of narwedine and related galanthamine alkaloids)
- RN 357-70-0 CAPLUS
- CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

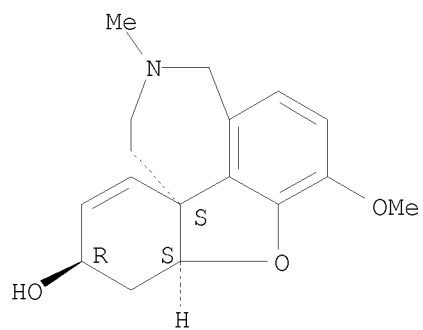
Absolute stereochemistry. Rotation (-).



- RN 1953-04-4 CAPLUS
- CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

10/573,517

Absolute stereochemistry. Rotation (-).



● HBr

L61 ANSWER 6 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1112812 CAPLUS

DOCUMENT NUMBER: 145:455163

TITLE: Preparation of galanthamine derivatives for treatment of senile dementia

INVENTOR(S): Hu, Yongzhou; Jia, Ping; Sheng, Rong

PATENT ASSIGNEE(S): Zhejiang University, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 21pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

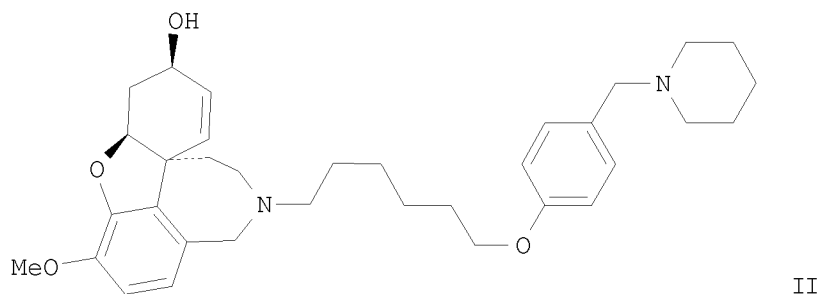
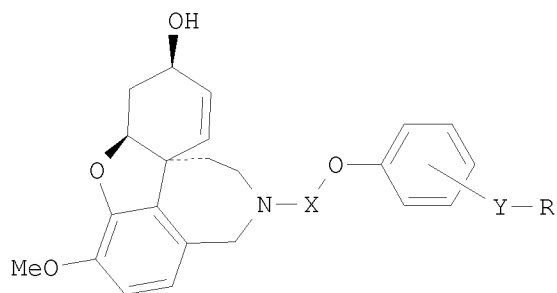
LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
CN 1847246	A	20061018	CN 2006-10050351	20060414
PRIORITY APPLN. INFO.:			CN 2006-10050351	20060414
OTHER SOURCE(S):		CASREACT 145:455163; MARPAT 145:455163		

GI



AB The title galanthamine derivs. I [wherein X =  $-(CH_2)_n-$ ; Y = meta- or para-linked  $-CH_2-$ ,  $-CH(Me)-$ , or  $C(=O)$ ; R =  $NEt_2$ , 1-piperidinyl, 4-morpholinyl, or 1-pyrrolidinyl; n = 2-12] or pharmaceutically acceptable hydrochlorides thereof were prepared as acetylcholinesterase inhibitors for treatment of senile dementia (no data). For example, II was prepared in a multi-step synthesis. II•2HCl showed inhibitory activity with IC<sub>50</sub> of 6.37 nM against acetylcholinesterase.

IT 913380-51-5P 913380-52-6P 913380-53-7P

10/573,517

913380-54-8P 913380-55-9P 913380-56-0P  
913380-58-2P 913380-59-3P 913380-60-6P  
913380-61-7P 913380-62-8P 913380-63-9P  
913380-64-0P 913380-65-1P 913380-66-2P  
913380-67-3P 913380-68-4P

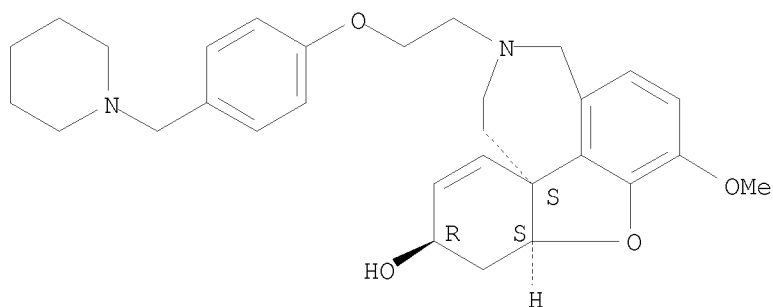
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(drug candidate; preparation of galanthamine derivs. for treatment of senile dementia)

RN 913380-51-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-[4-(1-piperidinylmethyl)phenoxy]ethyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

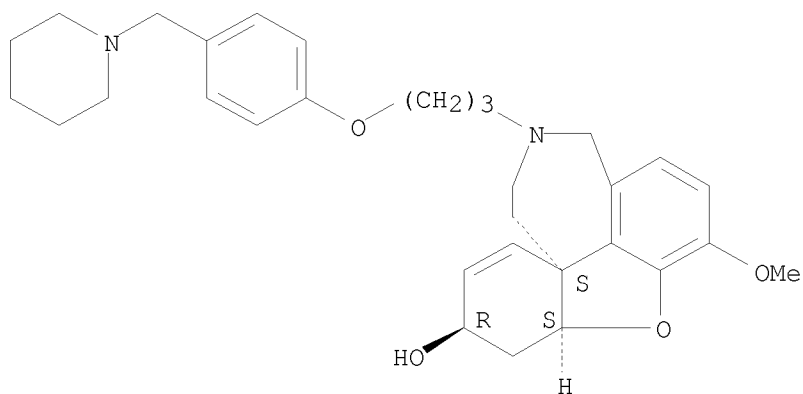
Absolute stereochemistry.



RN 913380-52-6 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 1,2,3,4,8,8a-hexahydro-10-methoxy-2-[3-[4-(1-piperidinylmethyl)phenoxy]propyl]-, (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



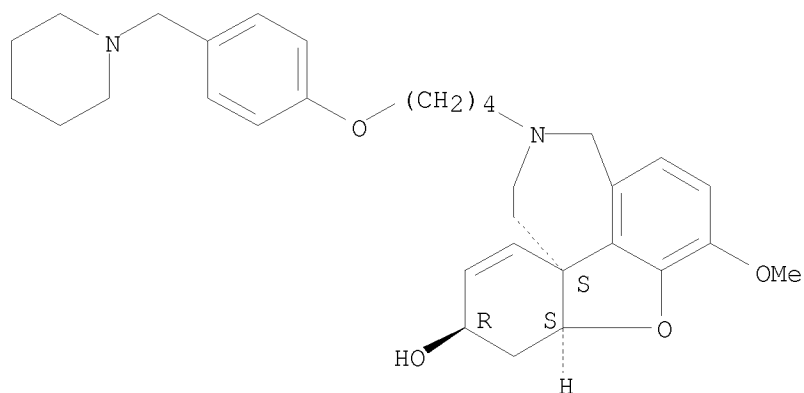
RN 913380-53-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[4-[4-(1-piperidinylmethyl)phenoxy]butyl]-, (4aS,6R,8aS)- (CA INDEX NAME)



10/573,517

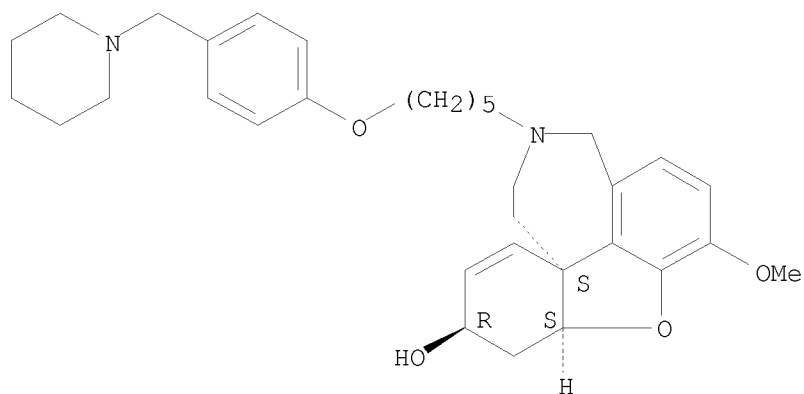
Absolute stereochemistry.



RN 913380-54-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[5-[4-(1-piperidinylmethyl)phenoxy]pentyl]-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

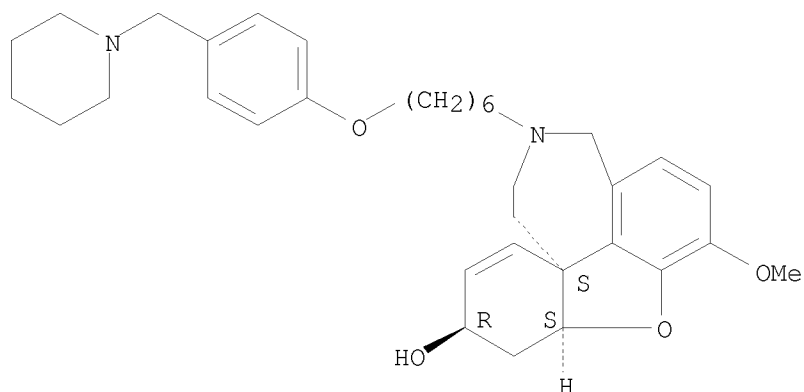


RN 913380-55-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-[4-(1-piperidinylmethyl)phenoxy]hexyl]-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

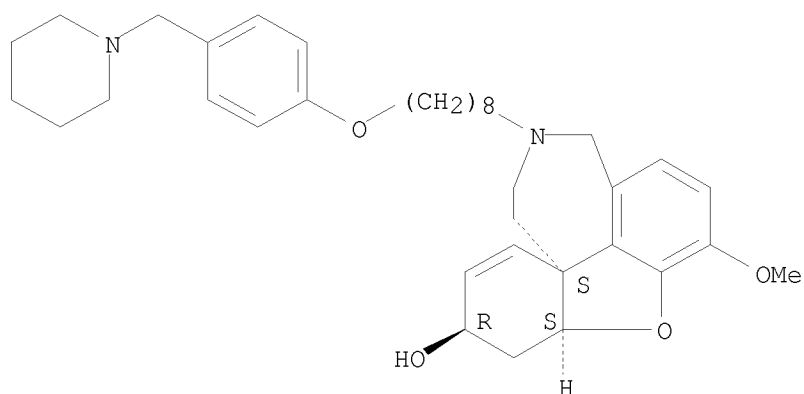
10/573,517



RN 913380-56-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[8-[4-(1-piperidinylmethyl)phenoxy]octyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

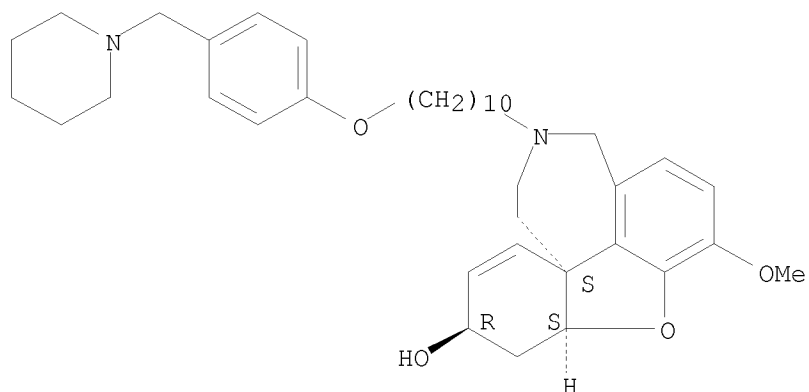


RN 913380-58-2 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 1,2,3,4,8,8a-hexahydro-10-methoxy-2-[10-[4-(1-piperidinylmethyl)phenoxy]decyl]-, (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

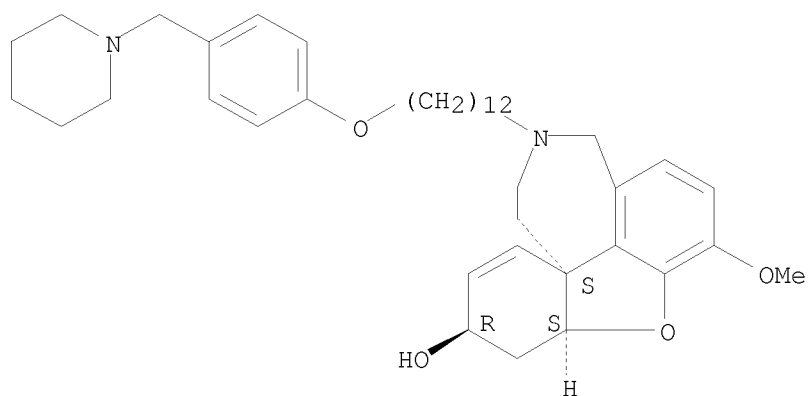
10/573,517



RN 913380-59-3 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[12-[4-(1-piperidinylmethyl)phenoxy]dodecyl]-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

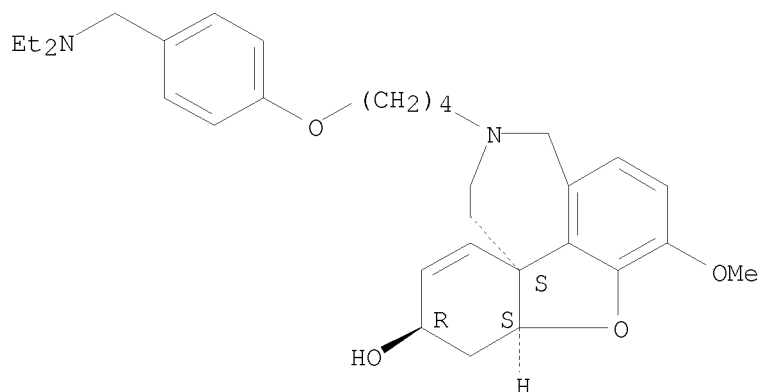


RN 913380-60-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4-[4-[(diethylamino)methyl]phenoxy]butyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

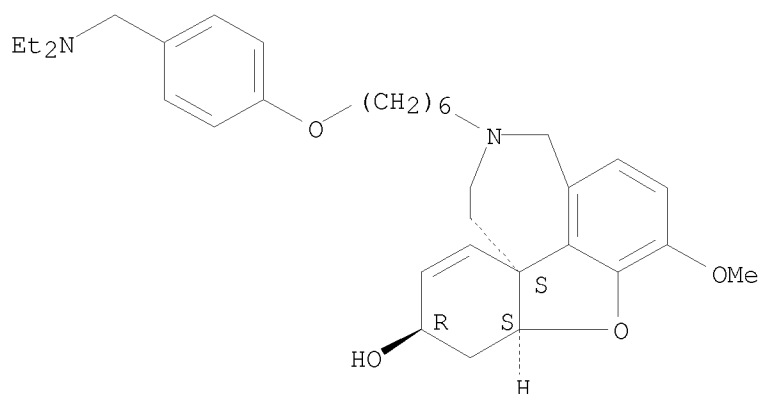
10/573,517



RN 913380-61-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[6-[4-  
[(diethylamino)methyl]phenoxy]hexyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

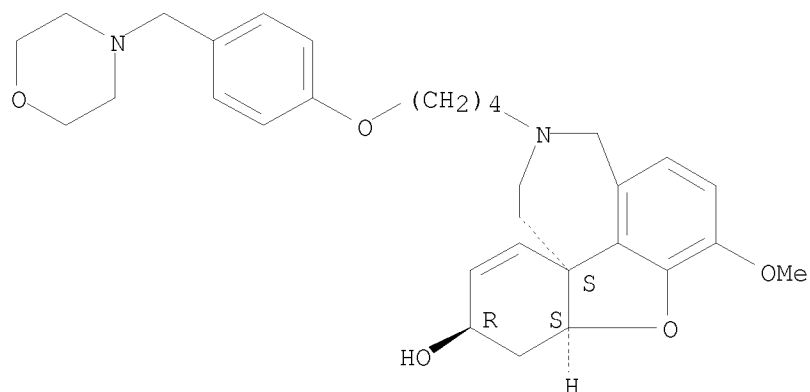


RN 913380-62-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-[4-[4-(4-morpholinylmethyl)phenoxy]butyl]-, (4aS,6R,8aS)- (CA  
INDEX NAME)

Absolute stereochemistry.

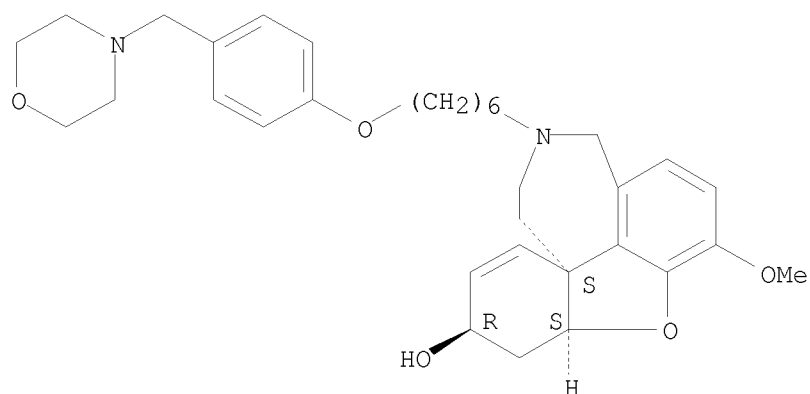
10/573,517



RN 913380-63-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-[4-(4-morpholinylmethyl)phenoxy]hexyl]-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

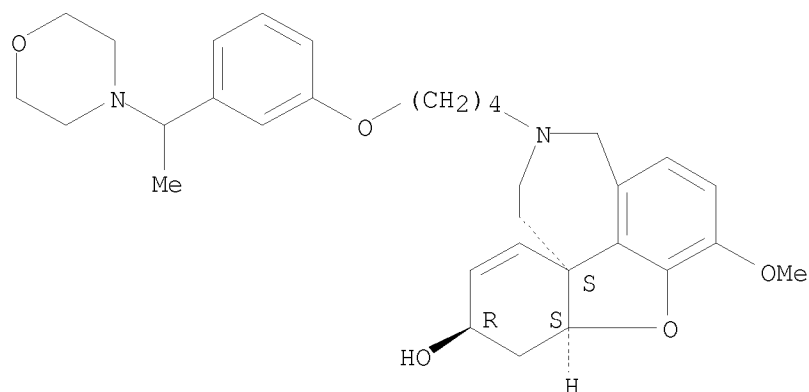


RN 913380-64-0 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[4-[3-[1-(4-morpholinyl)ethyl]phenoxy]butyl]-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

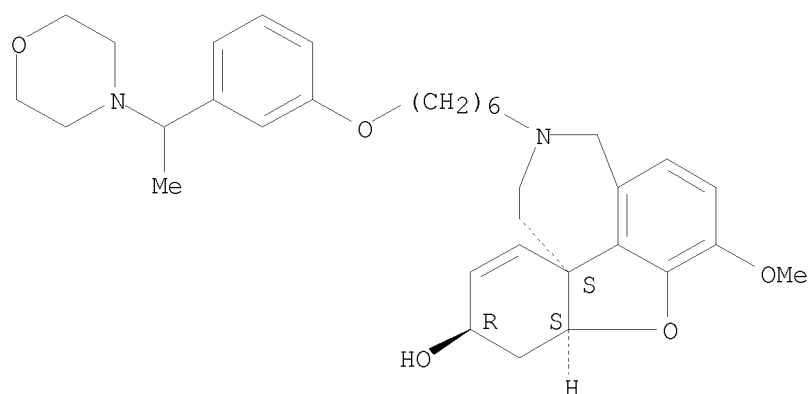
10/573,517



RN 913380-65-1 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-[3-[1-(4-morpholinyl)ethyl]phenoxy]hexyl]-, (8aS,10R,12aS)-(CA INDEX NAME)

Absolute stereochemistry.

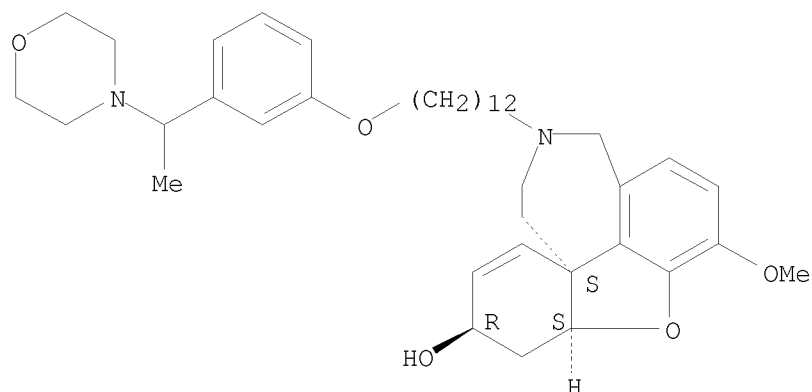


RN 913380-66-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[12-[3-[1-(4-morpholinyl)ethyl]phenoxy]dodecyl]-, (4aS,6R,8aS)-(CA INDEX NAME)

Absolute stereochemistry.

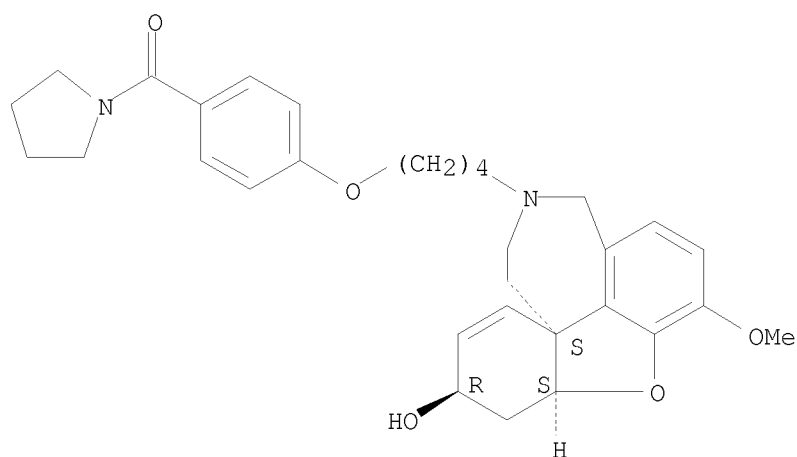
10/573,517



RN 913380-67-3 CAPLUS

CN Methanone, 1-pyrrolidinyl[4-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butoxy]phenyl]- (CA INDEX NAME)

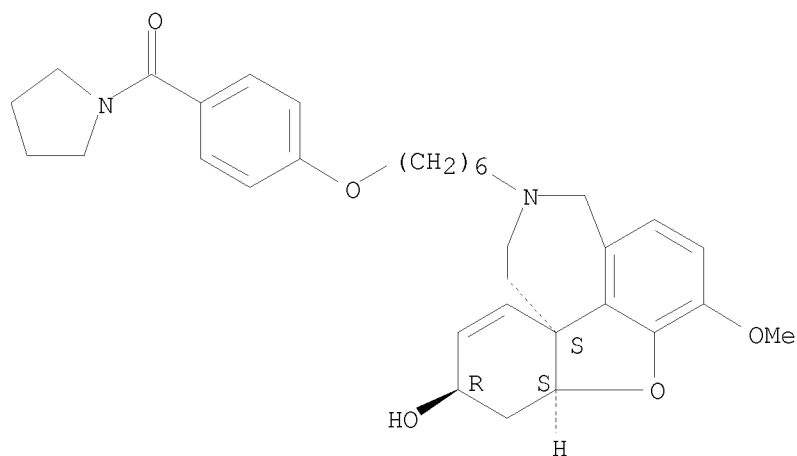
Absolute stereochemistry.



RN 913380-68-4 CAPLUS

CN Methanone, 1-pyrrolidinyl[4-[[6-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]hexyl]oxy]phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



IT 913380-57-1P 913380-69-5P 913380-70-8P  
 913380-71-9P 913380-72-0P 913380-73-1P  
 913380-74-2P 913380-75-3P 913380-76-4P  
 913380-77-5P 913380-78-6P 913380-79-7P  
 913380-80-0P 913380-81-1P 913380-82-2P  
 913380-83-3P 913380-84-4P 913380-85-5P

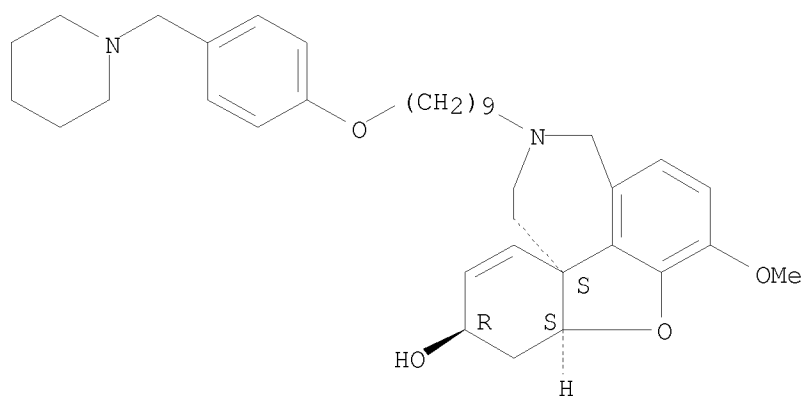
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of galanthamine derivs. for treatment of senile dementia)

RN 913380-57-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[9-[4-(1-piperidinylmethyl)phenoxy]nonyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



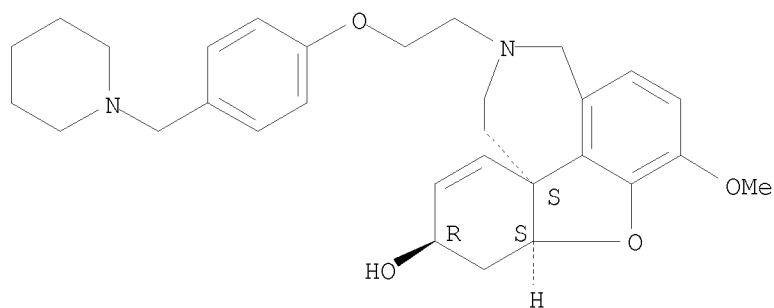
RN 913380-69-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-[4-(1-piperidinylmethyl)phenoxy]ethyl]-, hydrochloride (1:2), (4aS,6R,8aS)- (CA INDEX NAME)



10/573,517

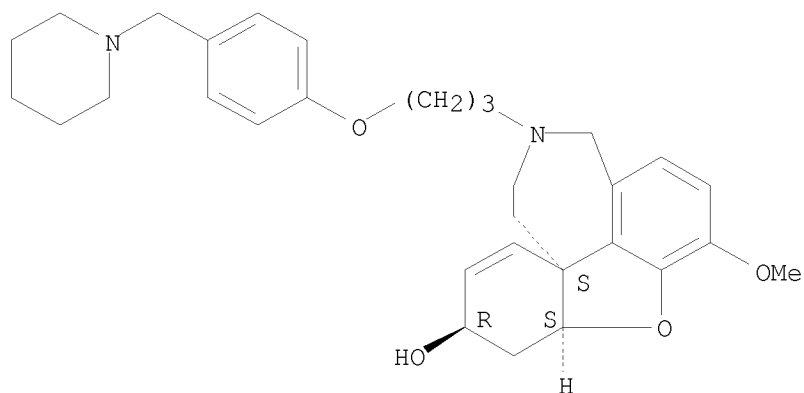
Absolute stereochemistry.



● 2 HCl

RN 913380-70-8 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 1,2,3,4,8,8a-hexahydro-10-methoxy-2-[3-[4-(1-piperidinylmethyl)phenoxy]propyl]-, hydrochloride (1:2), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

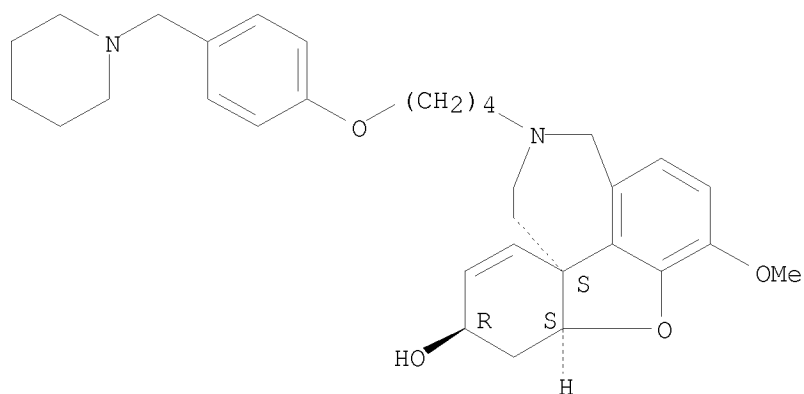


● 2 HCl

RN 913380-71-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[4-[4-(1-piperidinylmethyl)phenoxy]butyl]-, hydrochloride (1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

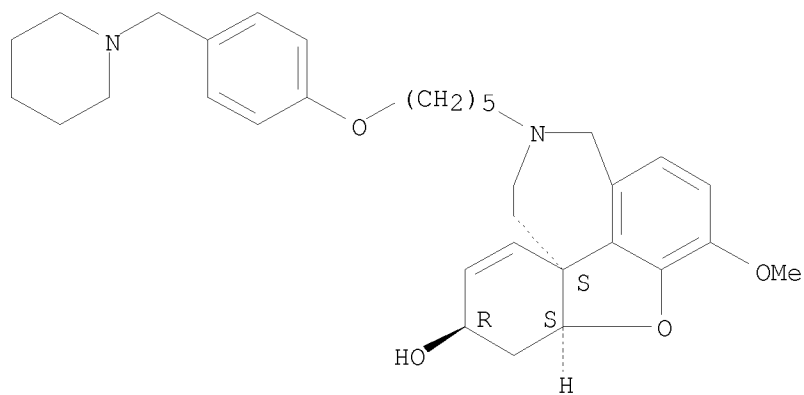
10/573,517



● 2 HCl

RN 913380-72-0 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[5-[4-(1-piperidinylmethyl)phenoxy]pentyl]-, hydrochloride (1:2), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

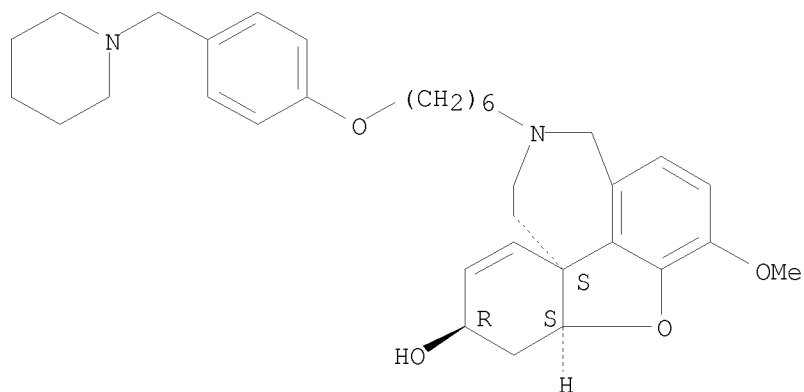


● 2 HCl

RN 913380-73-1 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-[4-(1-piperidinylmethyl)phenoxy]hexyl]-, hydrochloride (1:2), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

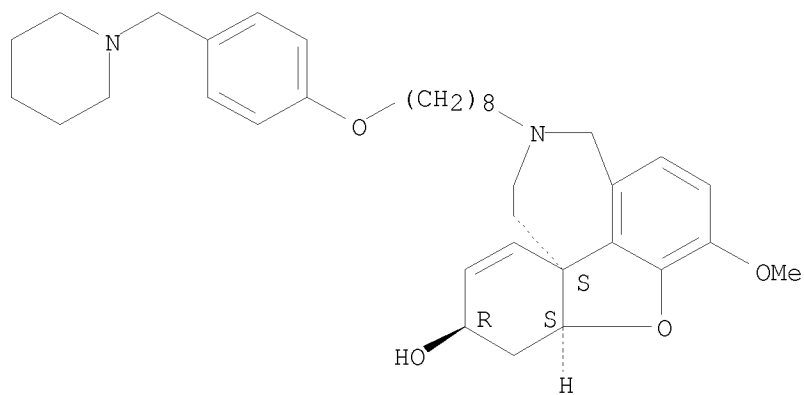
10/573,517



● 2 HCl

RN 913380-74-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[8-[4-(1-piperidinylmethyl)phenoxy]octyl]-, hydrochloride (1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

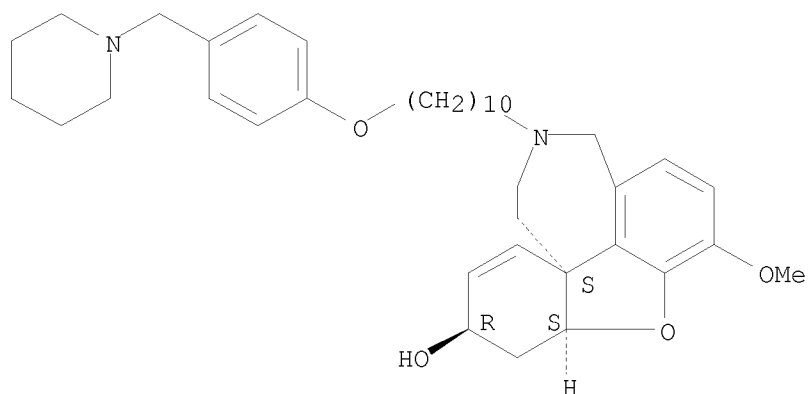


● 2 HCl

RN 913380-75-3 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 1,2,3,4,8,8a-hexahydro-10-methoxy-2-[10-[4-(1-piperidinylmethyl)phenoxy]decyl]-, hydrochloride (1:2), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

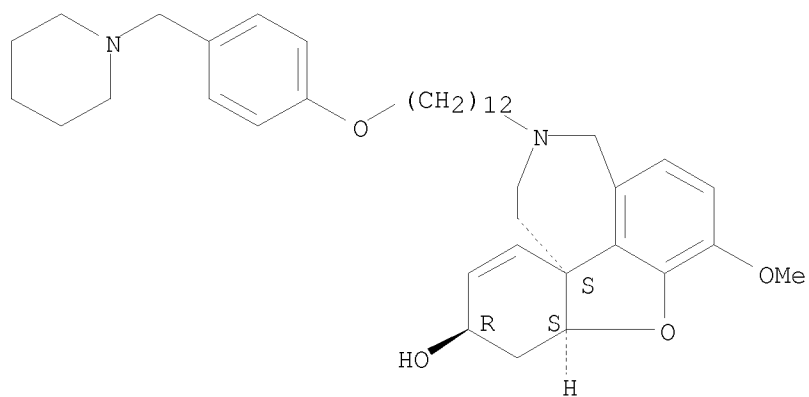
10/573,517



● 2 HCl

RN 913380-76-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[12-[4-(1-piperidinylmethyl)phenoxy]dodecyl]-, hydrochloride (1:2), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

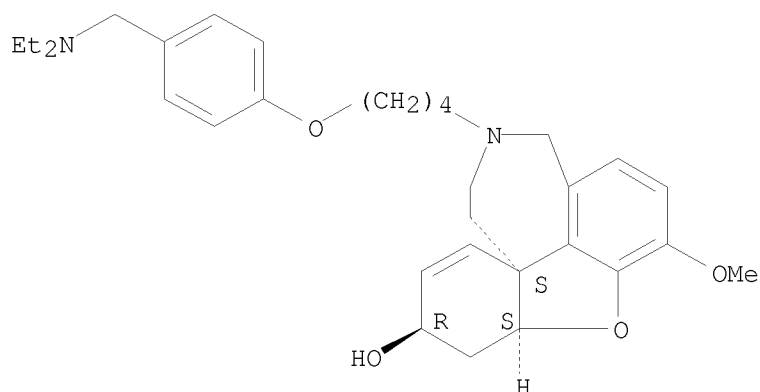


● 2 HCl

RN 913380-77-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4-[4-[(diethylamino)methyl]phenoxy]butyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, hydrochloride (1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

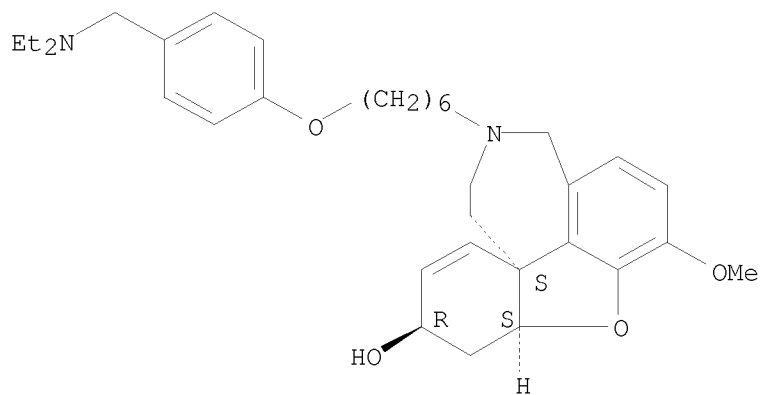
10/573,517



● 2 HCl

RN 913380-78-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[6-[4-  
[(diethylamino)methyl]phenoxy]hexyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-,  
hydrochloride (1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

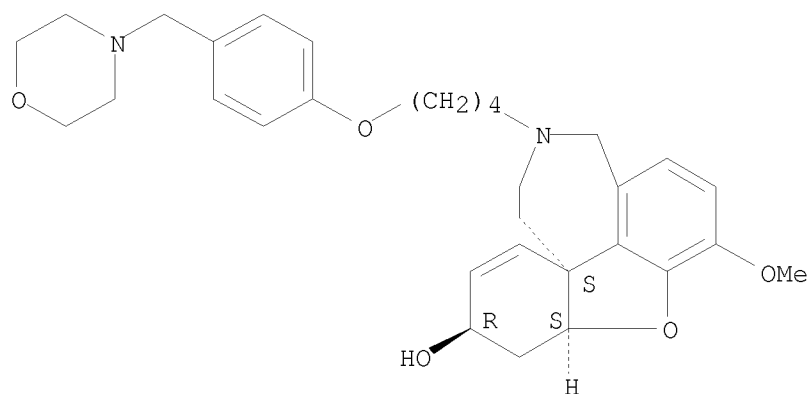


● 2 HCl

RN 913380-79-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-[4-[4-(4-morpholinylmethyl)phenoxy]butyl]-, hydrochloride  
(1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

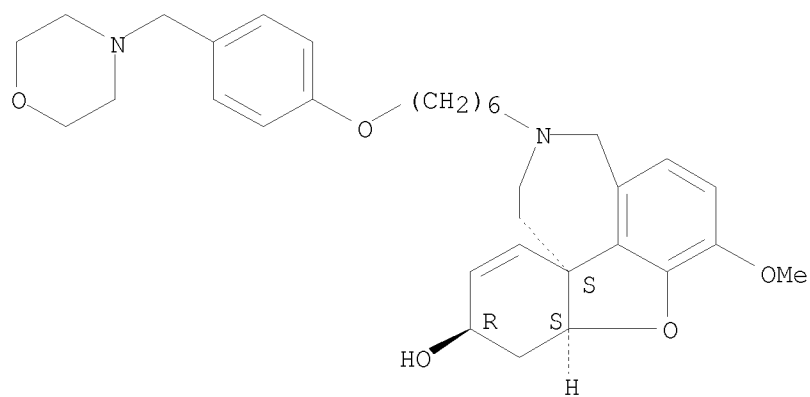
10/573,517



●2 HCl

RN 913380-80-0 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-[4-(4-morpholinylmethyl)phenoxy]hexyl]-, hydrochloride (1:2), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

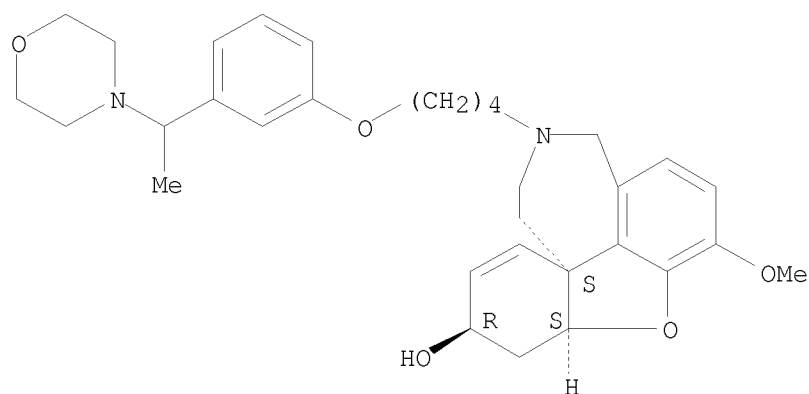


●2 HCl

RN 913380-81-1 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[4-[3-[1-(4-morpholinyl)ethyl]phenoxy]butyl]-, hydrochloride (1:2), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

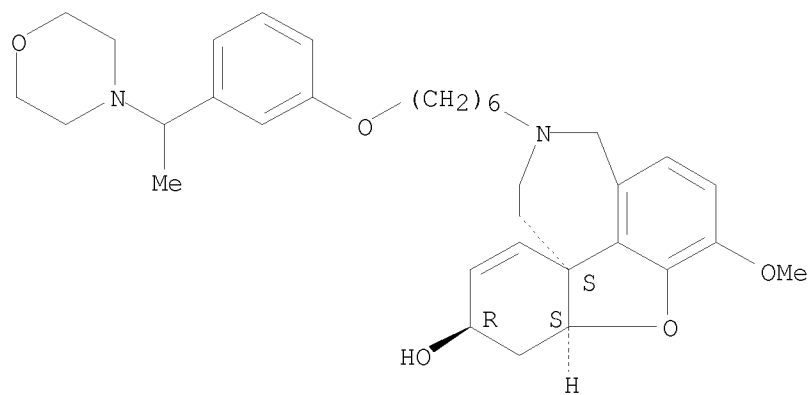
10/573,517



●2 HCl

RN 913380-82-2 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-[3-[1-(4-morpholinyl)ethyl]phenoxy]hexyl]-, hydrochloride (1:2), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

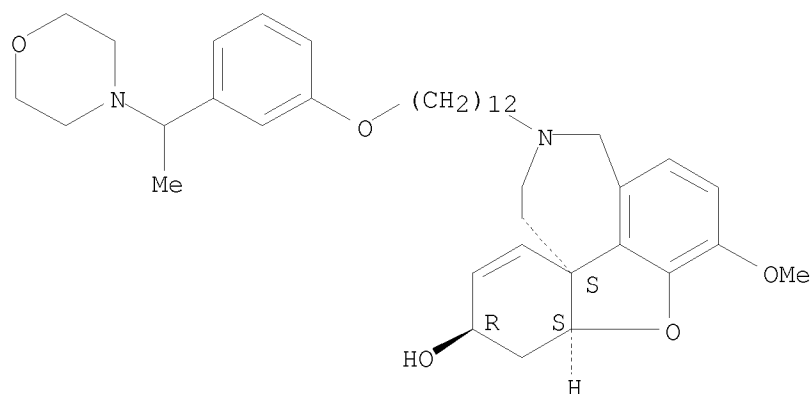


●2 HCl

RN 913380-83-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[12-[3-[1-(4-morpholinyl)ethyl]phenoxy]dodecyl]-, hydrochloride (1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517

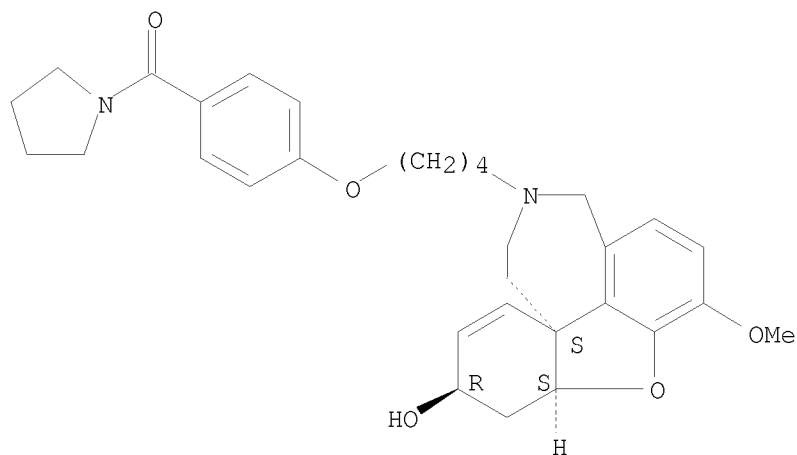


● 2 HCl

RN 913380-84-4 CAPLUS

CN Methanone, 1-pyrrolidinyl[4-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butoxy]phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

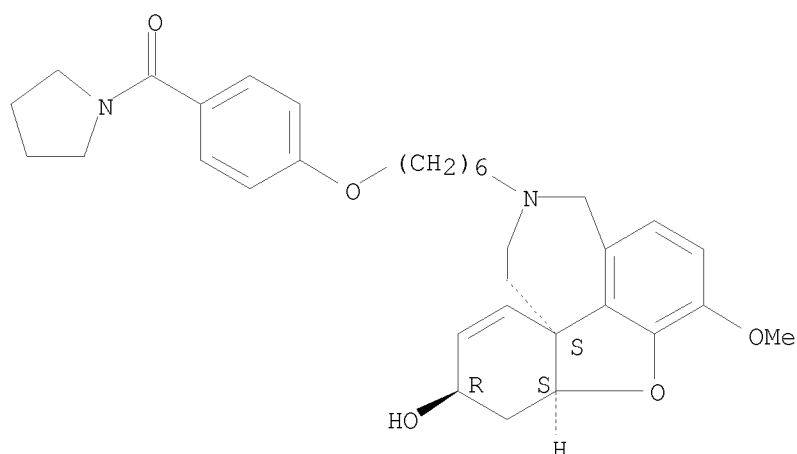
RN 913380-85-5 CAPLUS

CN Methanone, 1-pyrrolidinyl[4-[6-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]hexyl]oxy]phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.



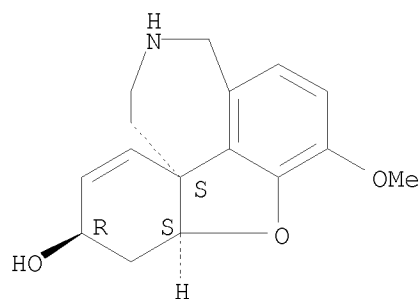
10/573,517



● HCl

IT 41303-74-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; preparation of galanthamine derivs. for treatment of senile dementia)  
RN 41303-74-6 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

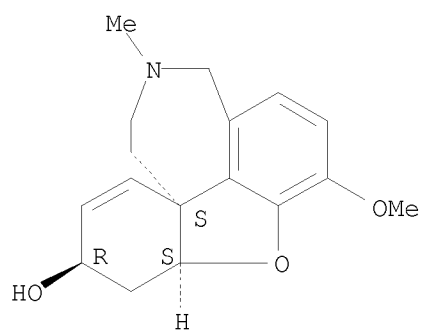
Absolute stereochemistry. Rotation (-).



IT 1953-04-4, Galanthamine hydrobromide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of galanthamine derivs. for treatment of senile dementia)  
RN 1953-04-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



● HBr

L61 ANSWER 7 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:977149 CAPLUS  
 DOCUMENT NUMBER: 145:363346  
 TITLE: Isolation of galanthamine from plant material  
 INVENTOR(S): Cvak, Ladislav; Buchta, Martin; Faustmann, Jiri;  
 Stverka, Pavel; Jegorov, Alexandr  
 PATENT ASSIGNEE(S): Ivax Pharmaceuticals S.R.O., Czech Rep.  
 SOURCE: PCT Int. Appl., 28pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006099635	A1	20060921	WO 2006-US10247	20060317
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
EP 1858897	A1	20071128	EP 2006-739152	20060317
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
IN 2007DN06287	A	20070831	IN 2007-DN6287	20070813
KR 2007119641	A	20071220	KR 2007-721134	20070914
CN 101142220	A	20080312	CN 2006-80008473	20070917
PRIORITY APPLN. INFO.:			US 2005-662585P	P 20050317
			WO 2006-US10247	W 20060317

AB The subject matter of present invention relates to the process for isolation and purification of galanthamine and its derivs. produced by numerous plants. A process for isolation of galanthamine from galanthamine-containing plant biomaterial, i.e., dried or fresh parts of plants of Amaryllidaceae family comprises (a) extraction of the biomaterial with aqueous solution of suitable

organic or inorg. acid obtaining thus a primary extract, and (b) adsorption of the organic compds. from the primary extract on a poly(styrene-divinylbenzene) adsorbent, washing the adsorbent with water, and elution of the organic compds. from the adsorbent using a water miscible organic solvent, obtaining a concentrate of alkaloids. The aqueous alkaloid concentrate is further purified by extraction

of the alkaloids into an organic solvent not miscible with water and the obtained extract is concentrated to obtain a crude alkaloid mixture The crude alkaloid mixture is further purified by a chromatog. on alumina using an organic solvent not miscible with water as the mobile phase, obtaining thus a purified galanthamine. Galanthamine obtained is used in pharmaceutical dosage forms.

IT 357-70-0P, Galanthamine 1953-04-4P, Galanthamine hydrobromide 5072-47-9P, Galanthamine hydrochloride

10/573,517

RL: NPO (Natural product occurrence); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

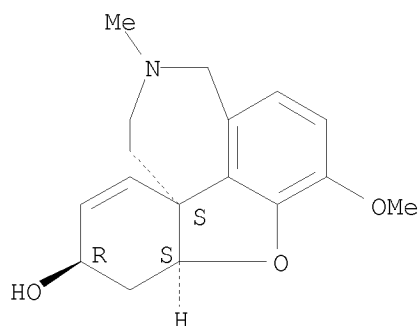
(extraction and purification of galanthamine from Amaryllidaceae plant material

for dosage forms)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

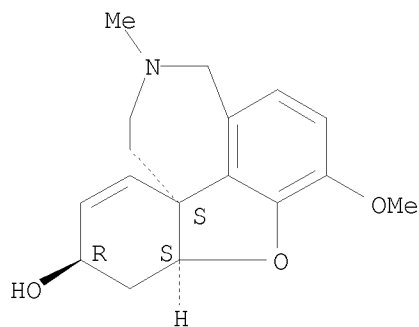
Absolute stereochemistry. Rotation (-).



RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



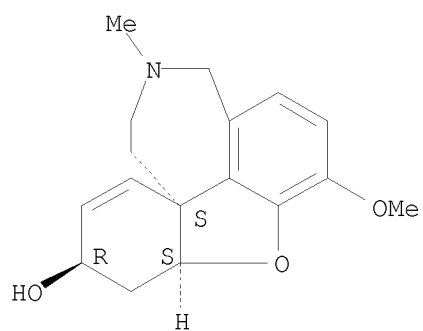
● HBr

RN 5072-47-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



● HCl

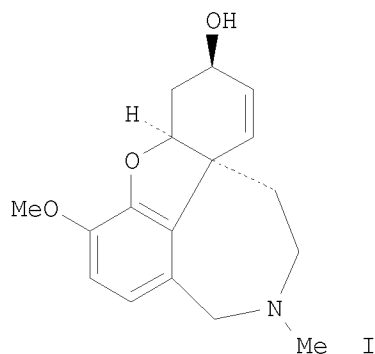
REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 8 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2006:677834 CAPLUS  
 DOCUMENT NUMBER: 145:124775  
 TITLE: Process for preparation of benzazepine  
 INVENTOR(S): Gharpure, Milind Moreshwar; Bhawal, Baburao Manikrao;  
 Zope, Umesh Rewaji; Govankar, Mangala Babu; Mehta,  
 Satish Ramanlal  
 PATENT ASSIGNEE(S): Emcure Pharmaceuticals Limited, India  
 SOURCE: PCT Int. Appl., 35 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
WO 2006072818	A2	20060713	WO 2005-IB3804	20051216
WO 2006072818	A3	20060824		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM IN 2005MU00003 A 20060811 IN 2005-MU3 20050104 PRIORITY APPLN. INFO.: IN 2005-MU3 A 20050104 IN 2005-MU863 A 20050721 OTHER SOURCE(S): CASREACT 145:124775 GI				

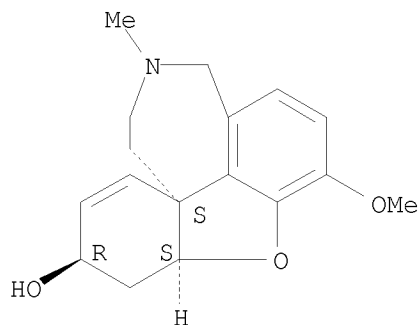


AB A process was disclosed for manufacture of (-)-galanthamine (I) via a stereoselective reduction step to get the desired isomer of galanthamine. A method for improving the chiral and chemical purity of galanthamine and galanthamine salts was also disclosed.

10/573,517

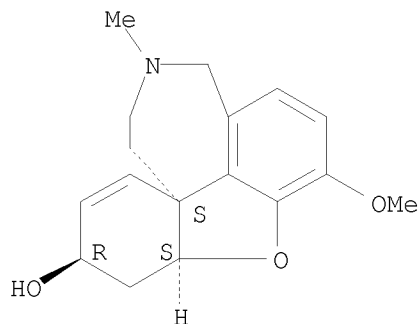
IT 357-70-0P, (-)-Galanthamine 1953-04-4P, (-)-Galanthamine  
Hydrobromide 179108-10-2P  
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic  
preparation); PREP (Preparation); RACT (Reactant or reagent)  
(process for preparation and resolution of (-)-galanthamine via the  
formation of the di-p-toluoyl-D-tartaric acid diastereomeric salt)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 1953-04-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-  
methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



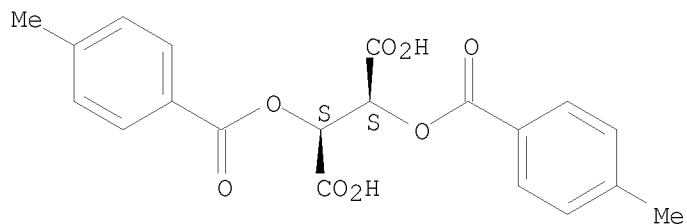
● HBr

RN 179108-10-2 CAPLUS  
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with  
(4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-  
benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)  
CM 1

10/573,517

CRN 32634-68-7  
CMF C20 H18 O8

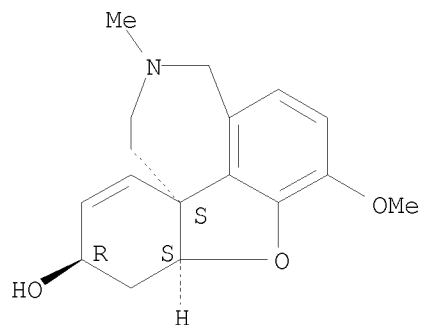
Absolute stereochemistry. Rotation (+).



CM 2

CRN 357-70-0  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).





L61 ANSWER 9 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:657067 CAPLUS

DOCUMENT NUMBER: 145:110405

TITLE: Nanoparticles comprising chitosan and

poly- $\gamma$ -glutamic acid for protein drug delivery

INVENTOR(S): Sung, Hsing-Wen; Lin, Yu-Hsin; Liang, Hsiang-Fa; Tu, Hosheng

PATENT ASSIGNEE(S): Taiwan

SOURCE: U.S. Pat. Appl. Publ., 27 pp., Cont.-in-part of U.S. Ser. No. 29,082.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 10

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060147539	A1	20060706	US 2005-284734	20051121
US 7282194	B2	20071016		
US 20060073209	A1	20060406	US 2004-958864	20041005
US 7348026	B2	20080325		
US 20060073210	A1	20060406	US 2005-29082	20050104
US 7265090	B2	20070904		
AU 2005322940	A1	20060713	AU 2005-322940	20051227
CA 2592991	A1	20060713	CA 2005-2592991	20051227
WO 2006073950	A2	20060713	WO 2005-US47125	20051227
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
EP 1833470	A2	20070919	EP 2005-857226	20051227
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU			
JP 2008528446	T	20080731	JP 2007-549559	20051227
US 20070116771	A1	20070524	US 2006-398145	20060405
US 7381716	B2	20080603		
US 20070116772	A1	20070524	US 2006-398440	20060405
US 7291598	B2	20071106		
US 20080160078	A1	20080703	US 2008-8556	20080111
PRIORITY APPLN. INFO.:			US 2004-958864	A2 20041005
			US 2005-29082	A2 20050104
			US 2005-284734	A 20051121
			WO 2005-US47125	W 20051227
			US 2006-398440	A2 20060405
			US 2006-442192	A1 20060526

AB The invention discloses the nanoparticles composed of chitosan, poly- $\gamma$ -glutamic acid, and at least one bioactive agent characterized

10/573,517

with a pos. surface charge and their enhanced permeability for paracellular drug delivery. For example, nanoparticles were obtained upon addition of poly- $\gamma$ -glutamic acid aqueous solution (pH 7.4, 2 mL) into a low-MW chitosan aqueous solution (pH 6.0, 10 mL) at varying concns. (0.01 %, 0.05 %, 0.10 %, 0.15 %, or 0.20 % by w/v) under magnetic stirring at room temperature

IT 5072-47-9, Galantamine hydrochloride

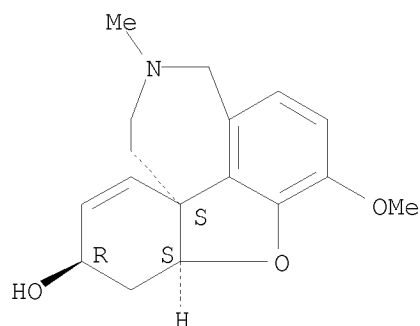
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nanoparticles comprising chitosan and poly- $\gamma$ -glutamic acid for protein drug delivery)

RN 5072-47-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

REFERENCE COUNT:

15

THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 10 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:412001 CAPLUS

DOCUMENT NUMBER: 144:450696

TITLE: A polymorphic form of narwedine and its use in the reductive synthesis of galantamine

INVENTOR(S): Lahiri, Saswata; Prasad, Mohan; Maheshwari, Nitin; Kumar, Yatendra

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

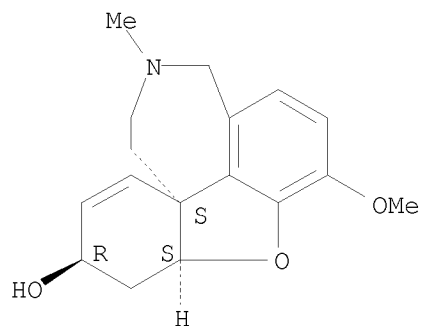
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006046096	A2	20060504	WO 2005-IB2429	20050815
WO 2006046096	A3	20060824		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
IN 2004DE01504	A	20060728	IN 2004-DE1504	20040816
PRIORITY APPLN. INFO.:			IN 2004-DE1504	A 20040816
			IN 2004-DE1505	A 20040816
			IN 2004-DE1551	A 20040819
AB	A polymorphic form of narwedine (Form B) and processes for its preparation is described. Also described is a reductive process for the synthesis of galantamine using a polymorph of narwedine (Form B).			
IT	1953-04-4P, Galantamine hydrobromide 807362-55-6P			
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)			
	(polymorphic form of narwedine and its use in the reductive synthesis of galantamine)			
RN	1953-04-4 CAPLUS			
CN	10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)			

Absolute stereochemistry. Rotation (-).

10/573,517



● HBr

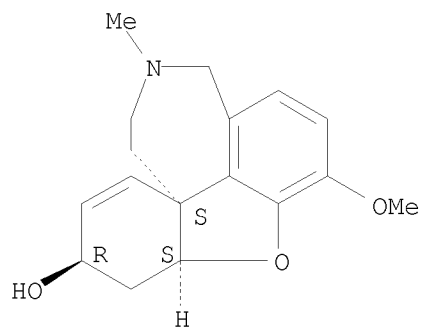
RN 807362-55-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



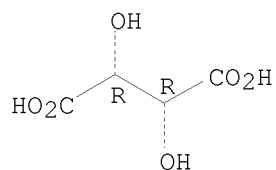
CM 2

CRN 87-69-4

CMF C4 H6 O6

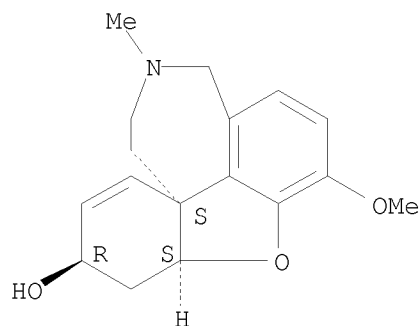
Absolute stereochemistry.

10/573,517



IT 357-70-0P, Galantamine  
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(polymorphic form of narwedine and its use in the reductive synthesis of galantamine)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

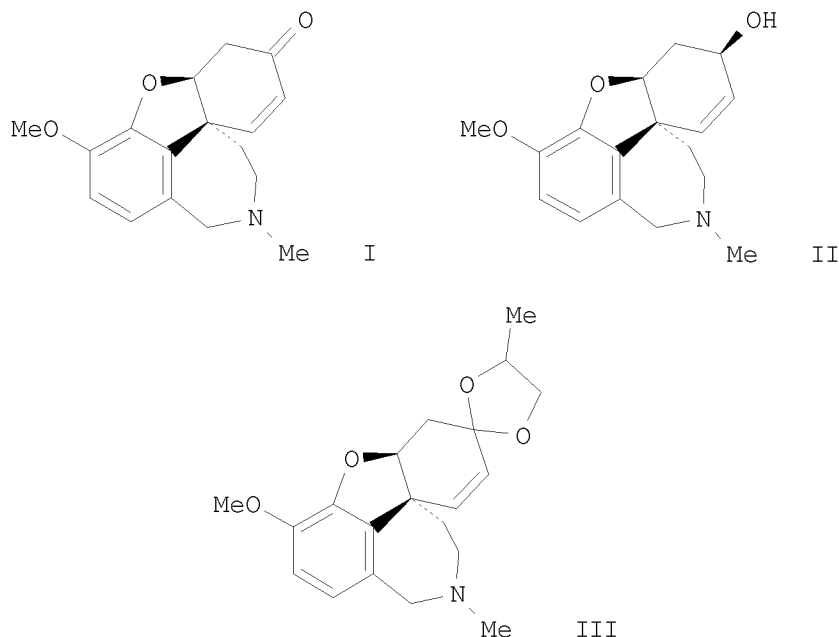
Absolute stereochemistry. Rotation (-).



10/573,517

L61 ANSWER 11 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:333388 CAPLUS  
DOCUMENT NUMBER: 144:331603  
TITLE: Processes for preparation of narwedine and its use in  
the synthesis of galantamine  
INVENTOR(S): Lahiri, Saswata; Prasad, Mohan; Maheshwari, Nitin;  
Kumar, Yatendra  
PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India  
SOURCE: PCT Int. Appl., 29 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
WO 2006018703	A2	20060223	WO 2005-IB2431	20050815
WO 2006018703	A3	20060720		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
IN 2004DE01504	A	20060728	IN 2004-DE1504	20040816
PRIORITY APPLN. INFO.:			IN 2004-DE1504	A 20040816
			IN 2004-DE1505	A 20040816
			IN 2004-DE1551	A 20040819
OTHER SOURCE(S):	CASREACT 144:331603			
GI				



AB The present invention relates to processes for the preparation of racemic narwedine (I), and use in the synthesis of pure (-)-galantamine (II) and salts thereof. More particularly, it relates to the preparation of pure (-)-galantamine hydrobromide (II·HBr). Thus, (-)-galantamine hydrobromide (II·HBr) was prepared from (±)-I via reduction with L-selectride in THF, resolution with di-p-tolyl-D-tartaric acid in MeOH, hydrolysis with aqueous ammonia in CH<sub>2</sub>Cl<sub>2</sub>, and acidification with HBr in EtOH. The invention also relates to pharmaceutical compds. that include pure galantamine or pharmaceutically acceptable salts thereof and use of said compds. for treating Alzheimer's disease, dementia, mania, fatigue syndrome, schizophrenia and for inhibiting cholinesterase activity (no data). The present invention further relates to a novel acid addition salt of narwedine isopropylene glycol ketal III·HBr, which is a useful intermediate in the synthesis of narwedine and galantamine.

IT 1953-04-4P

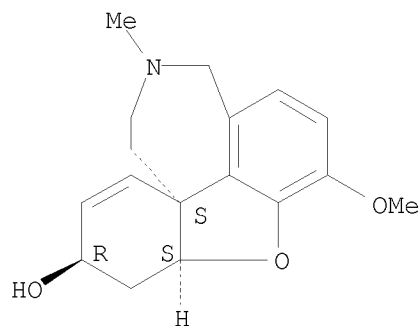
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(processes for preparation of narwedine and its use in the synthesis of galantamine)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



● HBr

IT 179108-10-2P 193146-85-9P  
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(processes for preparation of narwedine and its use in the synthesis of galantamine)

RN 179108-10-2 CAPLUS

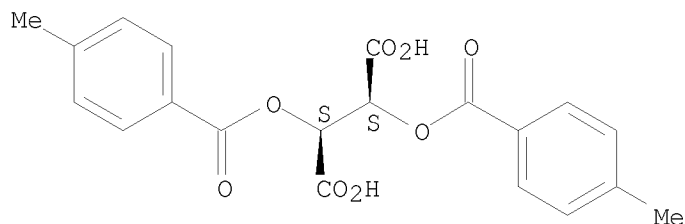
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

CM 1

CRN 32634-68-7

CMF C20 H18 O8

Absolute stereochemistry. Rotation (+).



CM 2

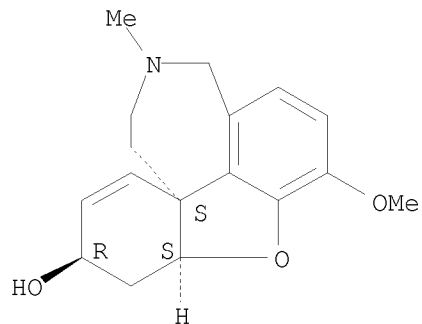
CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



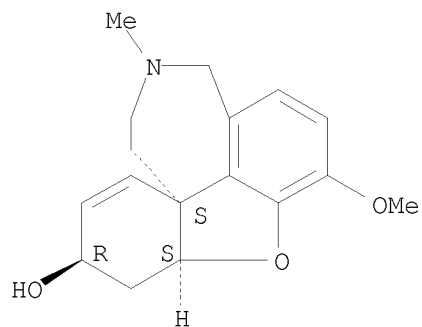
10/573,517



RN 193146-85-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide (1:1), (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

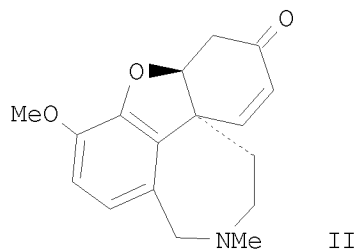
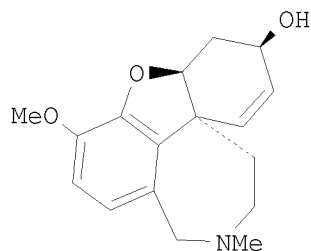


● HBr

L61 ANSWER 12 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:116896 CAPLUS  
 DOCUMENT NUMBER: 144:212936  
 TITLE: Process for the preparation of pure galantamine  
 INVENTOR(S): Lahiri, Saswata; Prasad, Mohan; Maheshwari, Nitin;  
 Kumar, Yatendra  
 PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India  
 SOURCE: PCT Int. Appl., 18 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006013546	A2	20060209	WO 2005-IB52553	20050728
WO 2006013546	A3	20060511		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
IN 2007DN01277	A	20070803	IN 2007-DN1277	20070215
PRIORITY APPLN. INFO.:			IN 2004-DE1393	A 20040728
			WO 2005-IB52553	W 20050728
OTHER SOURCE(S):	CASREACT 144:212936			
GI				



AB The invention relates to processes for the preparation of pure galantamine (I) or pharmaceutically acceptable salts thereof. More particularly, it relates to the preparation of pure galantamine hydrobromide. The process comprises: (a) reducing racemic narwedine (II) with a reducing agent [e.g., MBH4 (M = Li, Al, Na), and especially L-selectride] to get racemic I or  
 a

pharmaceutically acceptable salt thereof; (b) treating the racemic I with a chiral auxiliary to get (-)-I·CHI (CHI = chiral auxiliary); (c) converting (-)-I·CHI to (-)-I or a pharmaceutically acceptable salt thereof with alkali. Thus, (-)-galantamine hydrobromide (I·HBr) was prepared from (±)-II via reduction with L-selectride in THF, resolution with

D-(4-toluoyl)-D-tartaric acid in MeOH, hydrolysis with aqueous ammonia in CH<sub>2</sub>Cl<sub>2</sub>, and acidification with HBr in EtOH. The invention also relates to pharmaceutical compns. that include the pure galantamine or pharmaceutically acceptable salts thereof and use of said compns. for treating Alzheimer's disease, dementia, mania, fatigue syndrome, and schizophrenia (no data).

IT 193146-85-9P, (±)-Galantamine hydrobromide

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

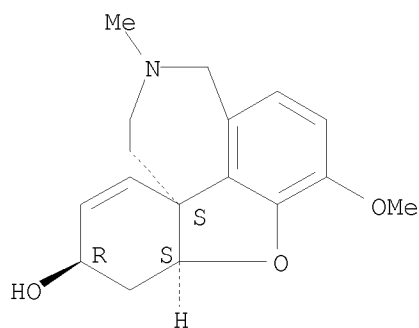
(preparation and resolution of, with D-(4-toluoyl)-D-tartaric acid; preparation of

pure galantamine or its hydrobromide)

RN 193146-85-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide (1:1), (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



● HBr

IT 357-70-0P, (-)-Galantamine 1953-04-4P, (-)-Galantamine hydrobromide

RL: PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

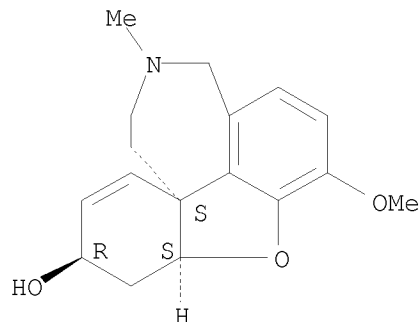
(preparation of pure galantamine or its hydrobromide)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

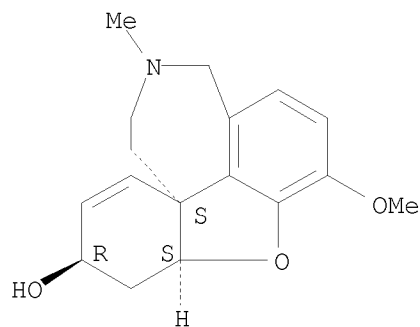
10/573,517



RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HBr

IT 179108-10-2P, (-)-Galantamine (+)-(4-toluoyl)-D-tartrate  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pure galantamine or its hydrobromide)

RN 179108-10-2 CAPLUS

CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

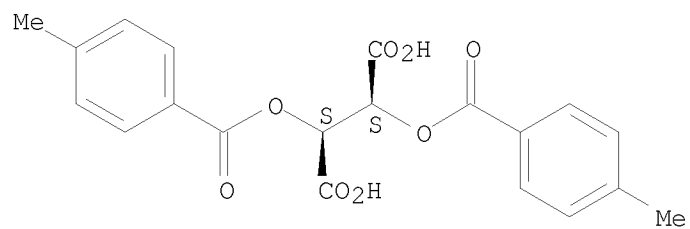
CM 1

CRN 32634-68-7

CMF C20 H18 O8

Absolute stereochemistry. Rotation (+).

10/573,517

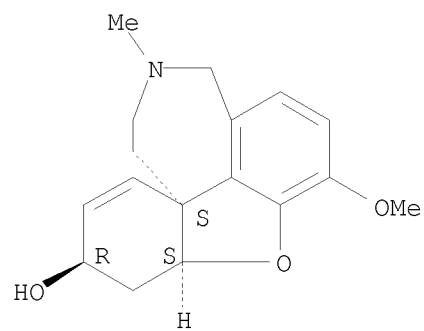


CM 2

CRN 357-70-0

CMF C17 H21 N O3

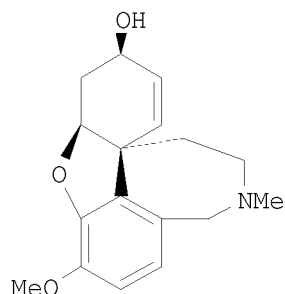
Absolute stereochemistry. Rotation (-).



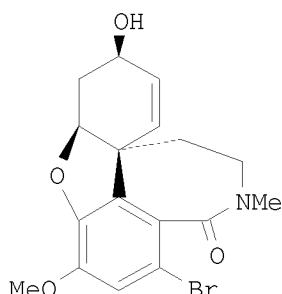
L61 ANSWER 13 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2006:37132 CAPLUS  
 DOCUMENT NUMBER: 144:129140  
 TITLE: Preparation of (-)-galantamine hydrobromide from  
 bromogalantamide  
 INVENTOR(S): Bolugoddu, Vijaya Bhaskar; Shukla, Sanjay; Jambula,  
 Mukunda Reddy; Sagyam, Rajeshwar Reddy; Pingili,  
 Ramchandra Reddy; Thirunavakarasu, Ananda Babu  
 PATENT ASSIGNEE(S): India  
 SOURCE: U.S. Pat. Appl. Publ., 12 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060009640	A1	20060112	US 2005-177897	20050708
PRIORITY APPLN. INFO.:			US 2004-586430P	P 20040708
OTHER SOURCE(S):		CASREACT 144:129140		

GI



I



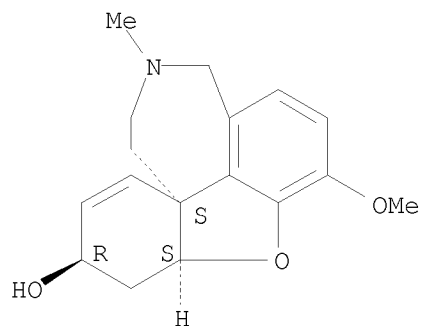
II

AB A process for preparing (-)-galantamine hydrobromide (I·HBr) from (±)-bromogalantamide (II) is described. A process for preparing I·HBr comprises: (i) amidation of 4-(PhCH<sub>2</sub>O)C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CO<sub>2</sub>Me with MeNH<sub>2</sub>; (ii) reduction of 4-(PhCH<sub>2</sub>O)C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CONHMe with NaBH<sub>4</sub>; (iii) bromination of 4-MeO-3-(PhCH<sub>2</sub>O)C<sub>6</sub>H<sub>4</sub>CHO with Br<sub>2</sub>; (iv) oxidation of 5-(benzyloxy)-2-bromo-4-methoxybenzaldehyde; (v) activation of 5-(benzyloxy)-2-bromo-4-methoxybenzoic acid with 1-hydroxybenzotriazole; (vi) amidation of the latter ester with 4-(PhCH<sub>2</sub>O)C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CH<sub>2</sub>NHMe; O-debenzylation of the latter amide; (vii) oxidative coupling of the phenol rings; (viii) reduction of II with sodium dihydrobis(2-methoxyethoxy)aluminate; (ix) resolution with (+)-di-O-(p-toluoyl) tartaric acid; and (x) treatment with HBr.

IT 1953-04-4P, (-)-Galantamine hydrobromide  
 RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of (-)-galantamine hydrobromide from bromogalantamide)  
 RN 1953-04-4 CAPLUS  
 CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

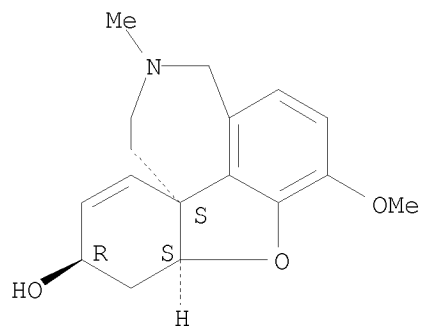
10/573,517



● HBr

IT 357-70-0 41303-74-6 199014-26-1  
RL: REM (Removal or disposal); PROC (Process)  
(preparation of (-)-galantamine hydrobromide from bromogalantamide)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

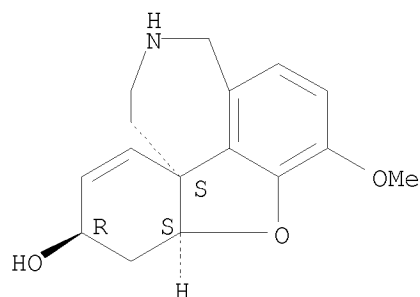
Absolute stereochemistry. Rotation (-).



RN 41303-74-6 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

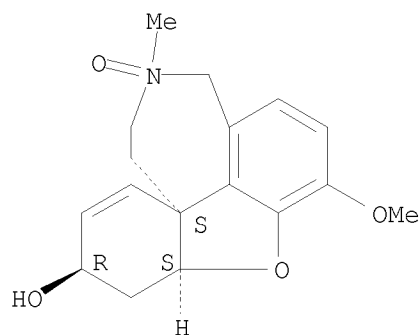
10/573,517



RN 199014-26-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 11-oxide, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



IT 873195-15-4P

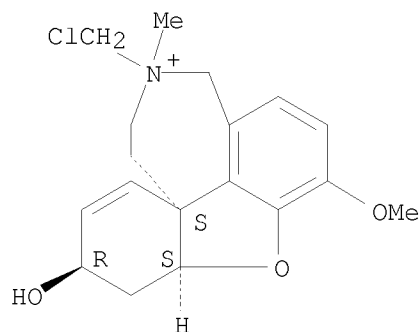
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of (-)-galantamine hydrobromide from bromogalantamide)

RN 873195-15-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-(chloromethyl)-4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.





L61 ANSWER 14 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:13076 CAPLUS

DOCUMENT NUMBER: 144:94393

TITLE: Compositions and methods using acetylcholinesterase (ACE) inhibitors to treat central nervous system (CNS) disorders in mammals

INVENTOR(S): Quay, Steven C.; Costantino, Henry R.; Houston, Michael E.; Leonard, Alexis Kays

PATENT ASSIGNEE(S): Natestch Pharmaceutical Company Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S. Ser. No. 831,031.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060003989	A1	20060105	US 2005-112950	20050422
US 20030225031	A1	20031204	US 2003-439108	20030515
CA 2482161	A1	20040108	CA 2003-2482161	20030519
AU 2003269874	A1	20040119	AU 2003-269874	20030519
EP 1505971	A2	20050216	EP 2003-751761	20030519
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005532372	T	20051027	JP 2004-517563	20030519
NZ 535192	A	20060526	NZ 2003-535192	20030519
US 20040254146	A1	20041216	US 2004-831031	20040423
IN 2004KN01664	A	20071012	IN 2004-KN1664	20041108
PRIORITY APPLN. INFO.:			US 2002-382122P	P 20020521
			US 2003-439108	A2 20030515
			US 2004-831031	A2 20040423
			WO 2003-US15653	W 20030519

AB Methods and compns. of the invention employ acetylcholinesterase (ACE) inhibitors to prevent and treat diseases and other disorders of the central nervous system (CNS), including Alzheimer's disease. ACE inhibitors are administered for targeted delivery to the CNS, for example by intranasal delivery. The methods and compns. of the present invention yield therapeutic concns. of ACE inhibitors in a CNS tissue or compartment without the attendant disadvantages, risks and side effects of oral or injection delivery. Exemplary ACE inhibitors for use within the invention include galantamine and various salts and derivs. of galantamine. Carboxylate salts of galantamine (e.g., galantamine gluconate, galantamine lactate, galantamine citrate and galantamine glucarate) described herein exhibit a significant increase in solubility compared to other forms of galantamine, such as galantamine hydrobromide.

IT 357-70-0, Galantamine 1953-04-4, Galantamine

hydrobromide 187963-74-2 807362-22-7

807362-27-2 807362-32-9 807362-37-4

807362-41-0 807362-45-4 807362-51-2

807362-55-6 807362-63-6 807362-69-2

807362-73-8 807362-80-7

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

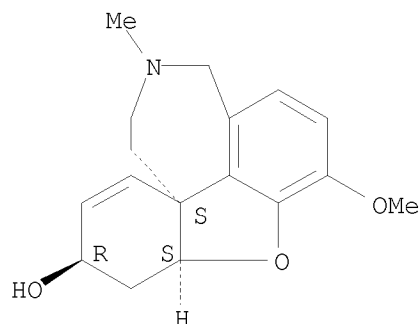
(acetylcholinesterase inhibitors to treat central nervous system disorders in mammals)

RN 357-70-0 CAPLUS

10/573,517

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

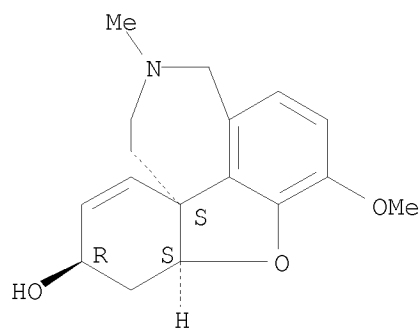
Absolute stereochemistry. Rotation (-).



RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HBr

RN 187963-74-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, methanesulfonate (1:1) (CA INDEX NAME)

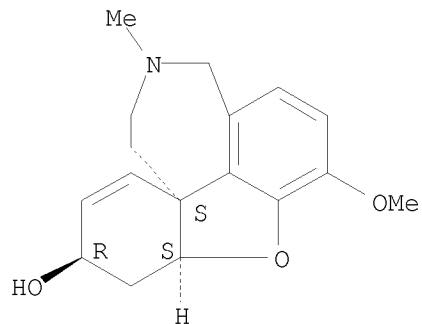
CM 1

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).

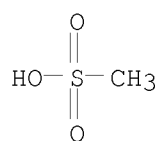
10/573,517



CM 2

CRN 75-75-2

CMF C H4 O3 S



RN 807362-22-7 CAPLUS

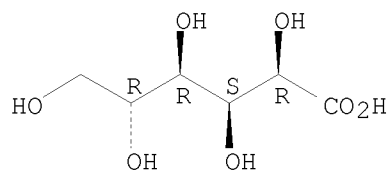
CN D-Gluconic acid, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (9CI)  
(CA INDEX NAME)

CM 1

CRN 526-95-4

CMF C6 H12 O7

Absolute stereochemistry.



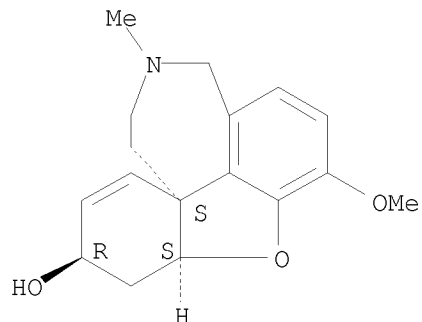
CM 2

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).

10/573,517



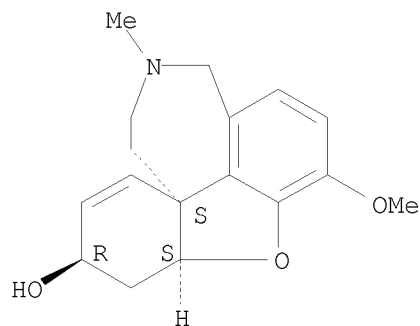
RN 807362-27-2 CAPLUS  
CN Propanoic acid, 2-hydroxy-, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

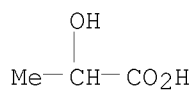
Absolute stereochemistry. Rotation (-).



CM 2

CRN 50-21-5

CMF C3 H6 O3



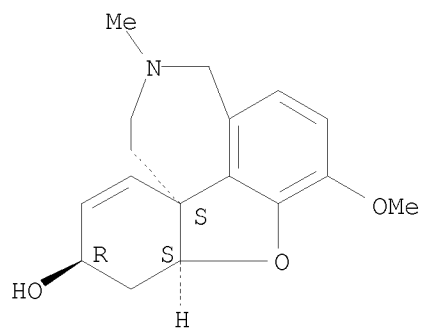
RN 807362-32-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, 2-hydroxy-1,2,3-propanetricarboxylate (1:1) (CA INDEX NAME)

CM 1

10/573,517

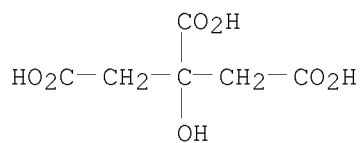
CRN 357-70-0  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



CM 2

CRN 77-92-9  
CMF C6 H8 O7

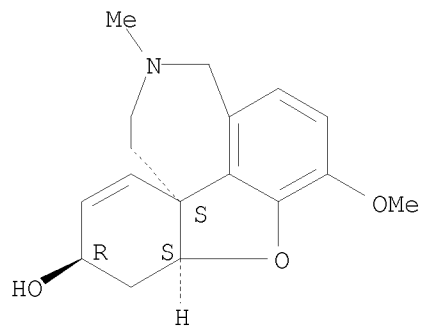


RN 807362-37-4 CAPLUS  
CN D-Glucaric acid, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (9CI)  
(CA INDEX NAME)

CM 1

CRN 357-70-0  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



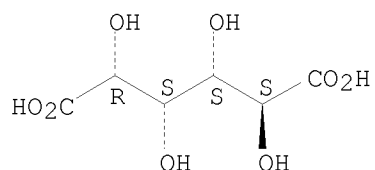
10/573,517

CM 2

CRN 87-73-0

CMF C6 H10 O8

Absolute stereochemistry.



RN 807362-41-0 CAPLUS

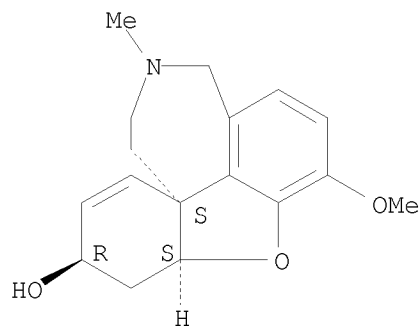
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, benzoate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

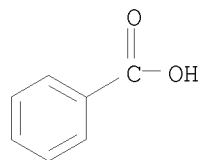
Absolute stereochemistry. Rotation (-).



CM 2

CRN 65-85-0

CMF C7 H6 O2



RN 807362-45-4 CAPLUS

10/573,517

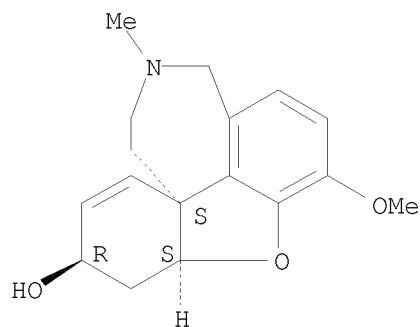
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, acetate (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

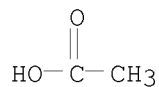
Absolute stereochemistry. Rotation (-).



CM 2

CRN 64-19-7

CMF C2 H4 O2



RN 807362-51-2 CAPLUS

CN Benzoic acid, 2-hydroxy-, (4aS,6R,8aS)-compd. with 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

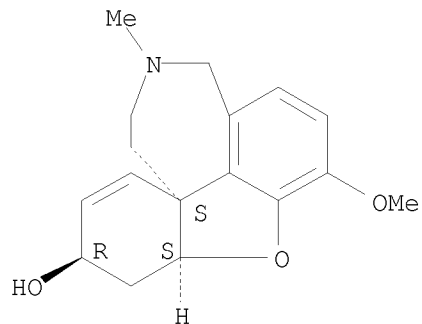
CM 1

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).

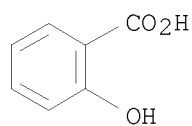
10/573,517



CM 2

CRN 69-72-7

CMF C7 H6 O3



RN 807362-55-6 CAPLUS

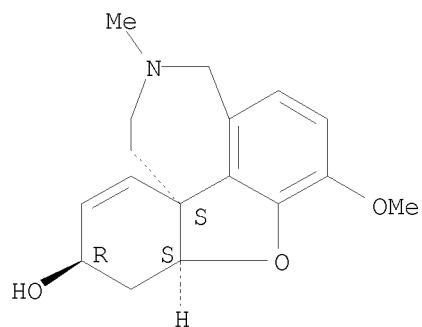
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



CM 2

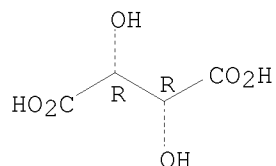
CRN 87-69-4

CMF C4 H6 O6



10/573,517

Absolute stereochemistry.



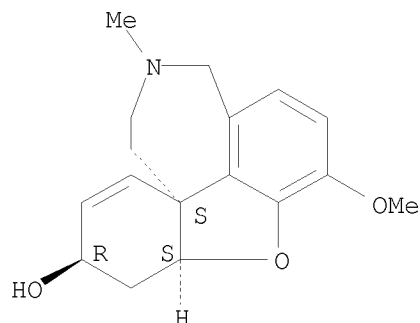
RN 807362-63-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

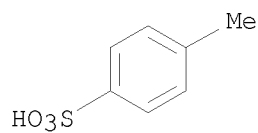
Absolute stereochemistry. Rotation (-).



CM 2

CRN 104-15-4

CMF C7 H8 O3 S



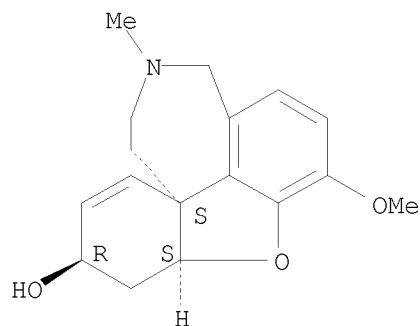
RN 807362-69-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, (2Z)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

10/573,517

CRN 357-70-0  
CMF C17 H21 N O3

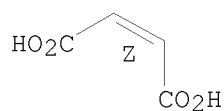
Absolute stereochemistry. Rotation (-).



CM 2

CRN 110-16-7  
CMF C4 H4 O4

Double bond geometry as shown.

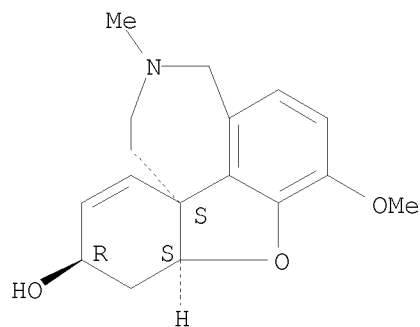


RN 807362-73-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, (2E)-2-butenedioate (1:1) (salt) (9CI)  
(CA INDEX NAME)

CM 1

CRN 357-70-0  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



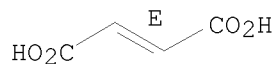
10/573,517

CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 807362-80-7 CAPLUS

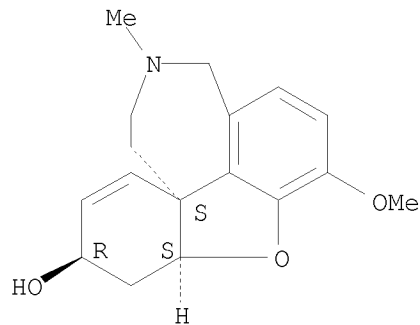
CN Octadecanoic acid, (4aS,6R,8aS)-compd. with 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

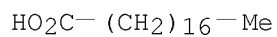
Absolute stereochemistry. Rotation (-).



CM 2

CRN 57-11-4

CMF C18 H36 O2



L61 ANSWER 15 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1021603 CAPLUS

DOCUMENT NUMBER: 143:311990

TITLE: Combined pharmaceutical composition for the inhibition of the decline of cognitive functions

INVENTOR(S): Levay, Gyoergy; Gacsalyi, Istvan; Harsing, Laszlo Gabor; Simig, Gyula

PATENT ASSIGNEE(S): Egis Gyogyszergyar Rt., Hung.

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005087212	A1	20050922	WO 2004-HU22	20040312
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004317129	A1	20050922	AU 2004-317129	20040312
CA 2559493	A1	20050922	CA 2004-2559493	20040312
EP 1727531	A1	20061206	EP 2004-720092	20040312
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, LT, LV, MK			
CN 1925849	A	20070307	CN 2004-80042405	20040312
BR 2004018634	A	20070529	BR 2004-18634	20040312
JP 2007528892	T	20071018	JP 2007-502417	20040312
MX 2006PA10384	A	20070307	MX 2006-PA10384	20060912
IN 2006DN05448	A	20070803	IN 2006-DN5448	20060919
NO 2006004644	A	20061211	NO 2006-4644	20061012
BG 109701	A	20070630	BG 2006-109701	20061012
US 20080021016	A1	20080124	US 2007-592461	20070712

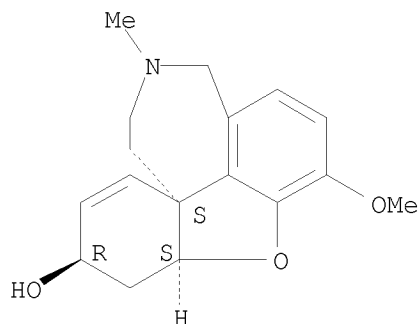
PRIORITY APPLN. INFO.: WO 2004-HU22 A 20040312

AB The invention relates to a combined pharmaceutical composition for the inhibition of the decline of cognitive functions comprising as A) component (1R,2S,4R)-(-)-2-[N,N-(dimethylaminoethoxy)]-2-phenyl-1,7,7-trimethylbicyclo]-2-phenyl-1.7.-trimethylbicyclo[2.2.1]heptane of the formula (I) or a pharmaceutically acceptable acid addition salt thereof and as B) component a nootropic, an inhibitor of the acetylcholinesterase enzyme and/or a further pharmaceutical active ingredient which exhibits a beneficial effect on the cognitive processes in admixt. with suitable inert pharmaceutical carriers and/or auxiliary agents. The combined pharmaceutical composition according to the present invention can be particularly used for the treatment of Alzheimer disease or other diseases showing similar symptoms, diseases accompanied by malfunctions of intellectual abilities (e.g. mental decline in schizophrenia), mental decline in elderly (dementias in elderly), Korsakoff syndrome, Huntington

10/573,517

syndrome, Parkinson syndrome or mental decline produced by alcoholism.  
IT 357-70-0, Galantamine 864722-14-5  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(combined pharmaceutical composition for inhibition of decline of cognitive  
functions)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



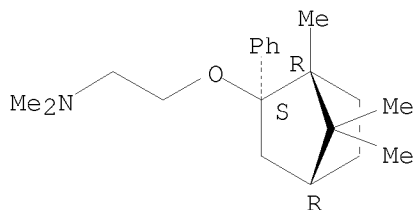
RN 864722-14-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)-, mixt. with N,N-dimethyl-2-[[ (1R,2S,4R)-  
1,7,7-trimethyl-2-phenylbicyclo[2.2.1]hept-2-yl]oxy]ethanamine (9CI) (CA  
INDEX NAME)

CM 1

CRN 120444-71-5

CMF C20 H31 N O

Absolute stereochemistry. Rotation (-).



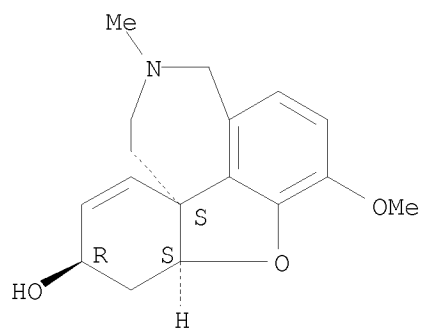
CM 2

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).

10/573,517



REFERENCE COUNT:

12

THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 16 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:501686 CAPLUS

DOCUMENT NUMBER: 144:94604

TITLE: Capillary electrophoresis-mass spectrometry in pharmaceutical industry

AUTHOR(S): Visky, Dora; Jimidar, M. Ilias; Van Ael, Willy; Chen, Albert F.-T.; Redlich, Dirk; De Smet, Maurice

CORPORATE SOURCE: Division of Janssen Pharmaceutica N. V., Global Analytical Department - Beerse, Johnson &amp; Johnson Pharmaceutical Research &amp; Development, Beerse, B-2340, Belg.

SOURCE: Chemie Magazine (Heverlee, Belgium) (2004), (5), 10-12  
CODEN: CHMAF2

PUBLISHER: Koninklijke Vlaamse Chemische Vereniging

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Ce-MS/MS technol. was successfully applied as an orthogonal technique to HPLC methods applied during impurity profiling of drugs. It is concluded that the applied instrumentation generally meets the authors' expectation, i.e. the sensitivity, repeatability and reproducibility are excellent and allows detecting impurities at very low levels in pharmaceutical samples.

IT 357-70-0, Galantamine 41303-74-6, Norgalantamine  
664995-65-7, R 116937

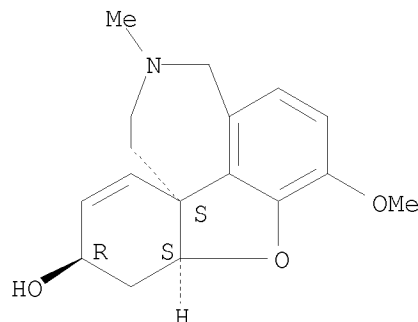
RL: ANT (Analyte); ANST (Analytical study)

(capillary electrophoresis-mass spectrometry applied during impurity profiling of drugs)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

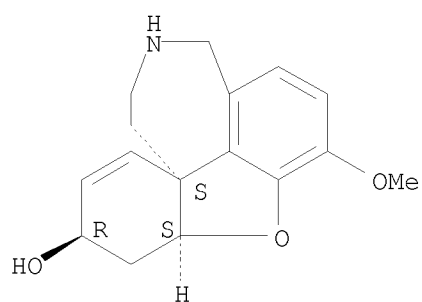


RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

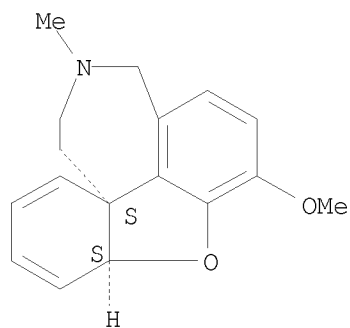
10/573,517



RN 664995-65-7 CAPLUS

CN 8aH-Benzofuro[3a,3,2-ef][2]benzazepine, 1,2,3,4-tetrahydro-7-methoxy-3-methyl-, (8aS,12aS)- (CA INDEX NAME)

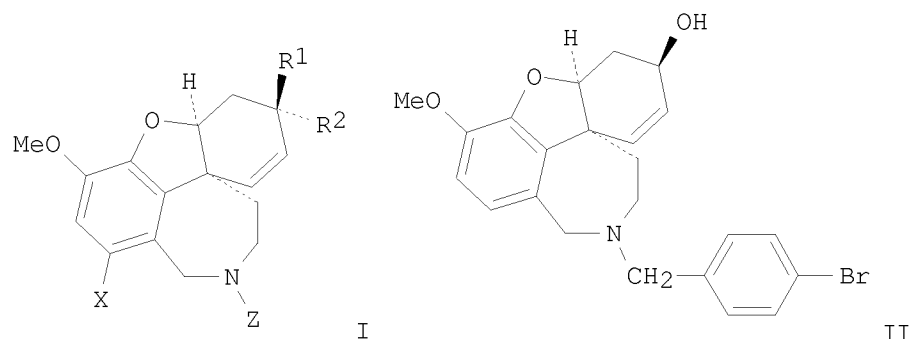
Absolute stereochemistry.





L61 ANSWER 17 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:300305 CAPLUS  
 DOCUMENT NUMBER: 142:374012  
 TITLE: Preparation of N-alkylgalanthamines and related compounds for the treatment of central nervous system diseases  
 INVENTOR(S): Czollner, Laszlo; Kaelz, Beate; Welzig, Stefan; Frantsits, Werner J.; Jordis, Ulrich; Froehlich, Johannes  
 PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria  
 SOURCE: PCT Int. Appl., 70 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030333	A2	20050407	WO 2004-AT309	20040909
WO 2005030333	A3	20050623		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AT 2004001174	A	20051215	AT 2004-1174	20040712
AT 414125	B	20060915		
AU 2004275426	A1	20050407	AU 2004-275426	20040909
CA 2539961	A1	20050407	CA 2004-2539961	20040909
EP 1667770	A2	20060614	EP 2004-761031	20040909
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR			
CN 1859949	A	20061108	CN 2004-80028347	20040909
JP 2007506682	T	20070322	JP 2006-527217	20040909
AT 500332	A2	20051215	AT 2005-904	20050525
AT 500332	A3	20071115		
MX 2006PA03293	A	20060608	MX 2006-PA3293	20060324
IN 2006KN00830	A	20070413	IN 2006-KN830	20060405
NO 2006001828	A	20060628	NO 2006-1828	20060425
US 20070105837	A1	20070510	US 2006-573517	20060605
PRIORITY APPLN. INFO.:			AT 2003-1538	A 20030929
			AT 2004-1174	A 20040712
			WO 2004-AT309	W 20040909
OTHER SOURCE(S):	MARPAT 142:374012			
GI				



AB Title compds. I [R1, R2 = H, OH; X = H, Br; Z = CH<sub>2</sub>CCCH; CH<sub>2</sub>C(CH<sub>2</sub>)CH<sub>3</sub>, CO(CH<sub>2</sub>)<sub>n</sub>Cl, etc.; n = 0-6] and their pharmaceutically acceptable salts were prepared. For example, 4-bromobenzyl bromide N-alkylation of (-)-norgalanthamine, afforded alkylgalanthamine II in 70% yield. In acetylcholinesterase inhibition assays, 60-examples of compds. I exhibited IC<sub>50</sub> values ranging from 0.016-100  $\mu$ M, e.g., the IC<sub>50</sub> value of alkylgalanthamine II was 0.016  $\mu$ M. Compds. I are claimed to be useful for the treatment of Alzheimer's disease.

IT 156040-03-8P 365570-82-7P 849232-98-0P  
 849232-99-1P 849233-00-7P 849370-65-6P  
 849370-66-7P 849370-67-8P 849370-68-9P  
 849370-70-3P 849370-71-4P 849370-72-5P  
 849370-73-6P 849370-74-7P 849370-75-8P  
 849370-76-9P 849370-77-0P 849370-78-1P  
 849370-79-2P 849370-80-5P 849370-81-6P  
 849370-82-7P 849370-83-8P 849370-84-9P  
 849370-85-0P 849370-86-1P 849370-87-2P  
 849370-88-3P 849370-89-4P 849370-90-7P  
 849370-91-8P 849370-92-9P 849370-93-0P  
 849370-94-1P 849370-95-2P 849370-96-3P  
 849370-97-4P 849370-98-5P 849370-99-6P  
 849371-00-2P 849371-01-3P 849371-02-4P  
 849371-03-5P 849371-04-6P 849371-05-7P  
 849371-06-8P 849371-07-9P 849371-08-0P  
 849371-09-1P 849371-10-4P 849371-11-5P  
 849371-12-6P 849371-13-7P 849371-14-8P  
 849371-15-9P 849371-16-0P 849371-17-1P  
 849371-18-2P 849439-75-4P, (-)-8-Bromo-3-  
 epinorgalanthamine 849439-76-5P, (+)-8-Bromo-3-  
 epinorgalanthamine 849439-78-7P 849439-79-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

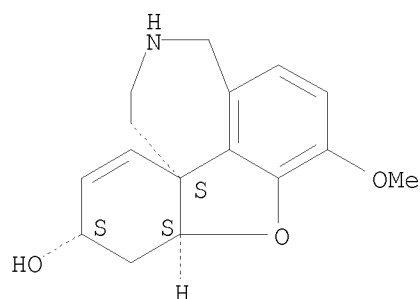
(preparation of N-alkylgalanthamines and related compds. for the treatment of central nervous system diseases)

RN 156040-03-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10S,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

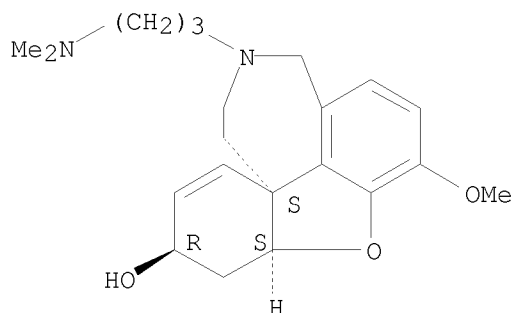
10/573,517



RN 365570-82-7 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3-(dimethylamino)propyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

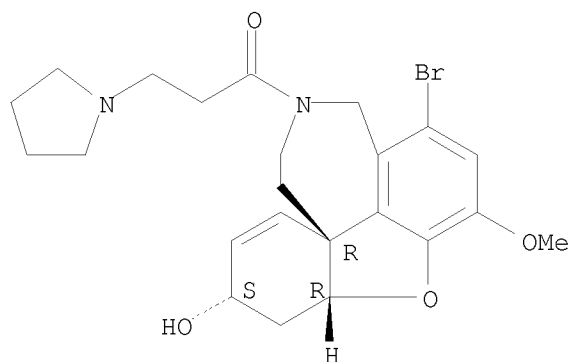
Absolute stereochemistry. Rotation (-).



RN 849232-98-0 CAPLUS

CN 1-Propanone, 1-[(4aR,7S,8aR)-12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]-3-(1-pyrrolidinyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



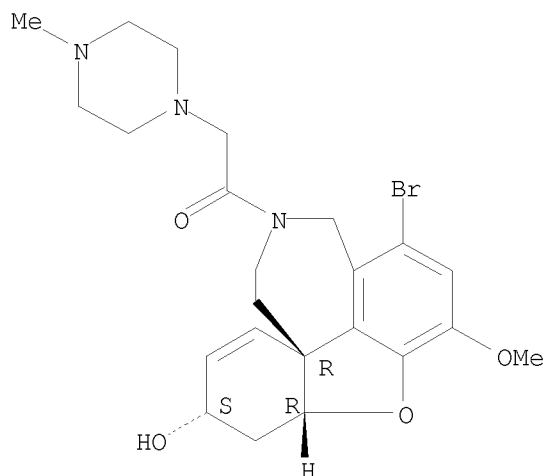
RN 849232-99-1 CAPLUS

CN Ethanone, 1-[(4aR,7S,8aR)-12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]-2-(4-methyl-1-

10/573,517

piperazinyl)- (CA INDEX NAME)

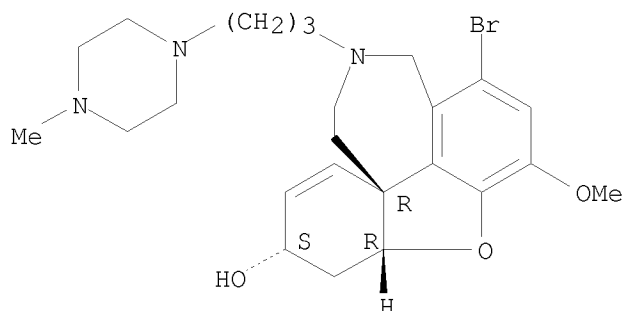
Absolute stereochemistry. Rotation (+).



RN 849233-00-7 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 12-bromo-1,2,3,4,8,8a-hexahydro-10-methoxy-2-[3-(4-methyl-1-piperazinyl)propyl]-, hydrochloride (1:3), (4aR,7S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



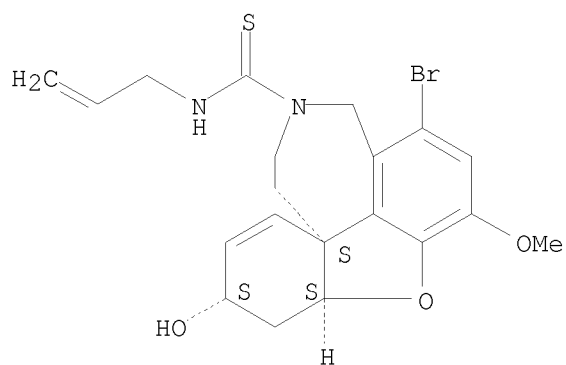
●3 HCl

RN 849370-65-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioamide, 1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-2-propen-1-yl-, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

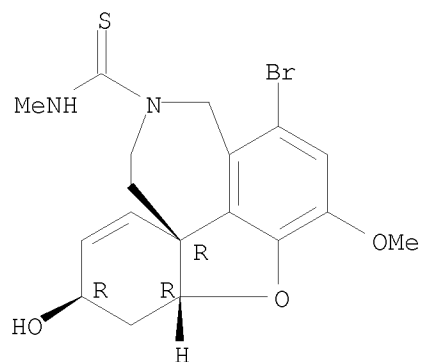
10/573,517



RN 849370-66-7 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carbothioamide,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-N-methyl-, (4aR,7R,8aR)-  
(CA INDEX NAME)

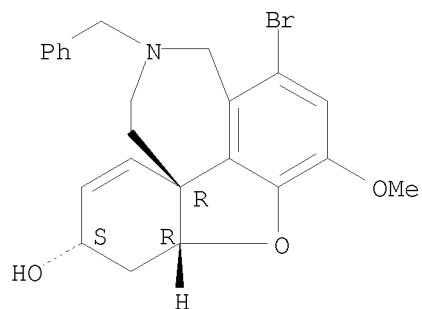
Absolute stereochemistry. Rotation (+).



RN 849370-67-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-  
hexahydro-3-methoxy-11-(phenylmethyl)-, (4aR,6S,8aR)- (CA INDEX NAME)

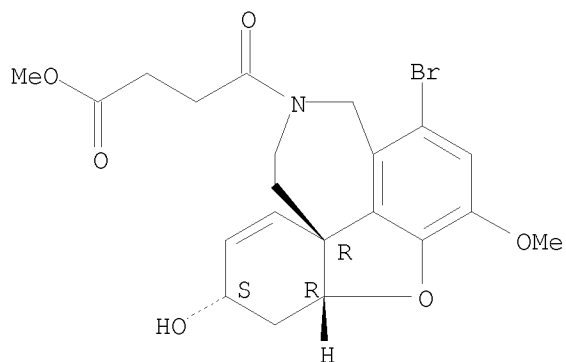
Absolute stereochemistry. Rotation (+).



10/573,517

RN 849370-68-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-butanoic acid,  
1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy- $\gamma$ -oxo-, methyl  
ester, (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

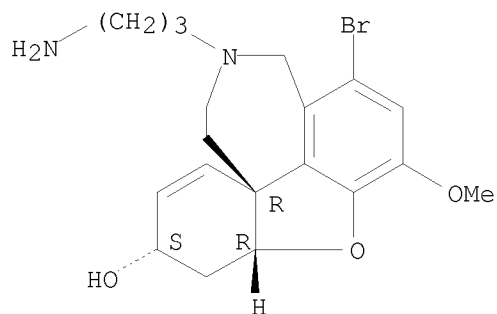


RN 849370-70-3 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 2-(3-aminopropyl)-12-bromo-  
1,2,3,4,8,8a-hexahydro-10-methoxy-, (4aR,7S,8aR)-, methanesulfonate (1:1)  
(CA INDEX NAME)

CM 1

CRN 849370-69-0  
CMF C19 H25 Br N2 O3

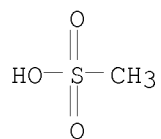
Absolute stereochemistry. Rotation (+).



CM 2

CRN 75-75-2  
CMF C H4 O3 S

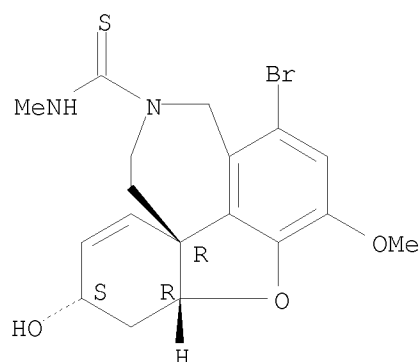
10/573,517



RN 849370-71-4 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carbothioamide,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-N-methyl-, (4aR,7S,8aR)-  
(CA INDEX NAME)

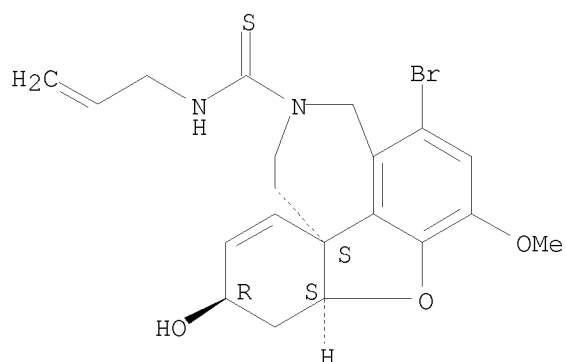
Absolute stereochemistry. Rotation (+).



RN 849370-72-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioamide,  
1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-2-propen-1-yl-,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

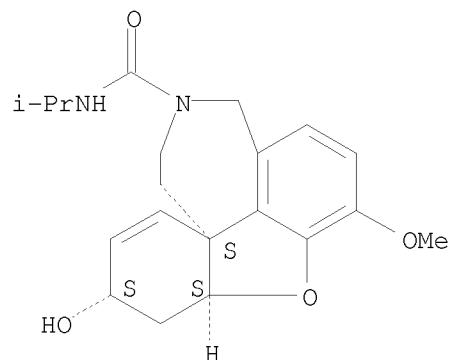


RN 849370-73-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-,  
(8aS,10S,12aS)- (CA INDEX NAME)

10/573,517

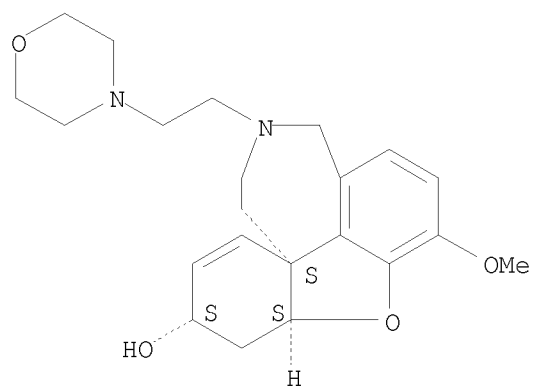
Absolute stereochemistry. Rotation (-).



RN 849370-74-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



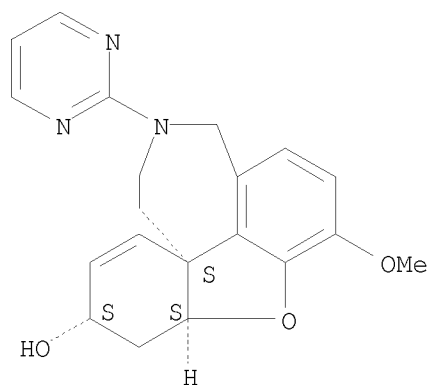
RN 849370-75-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-pyrimidinyl)-, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



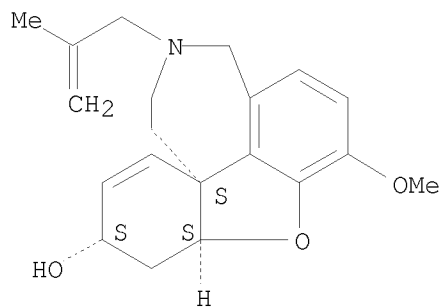
10/573,517



RN 849370-76-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-methyl-2-propen-1-yl)-, (4aS,6S,8aS)- (CA INDEX NAME)

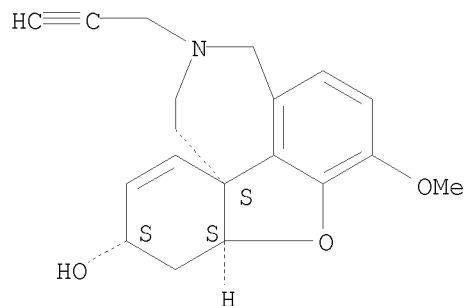
Absolute stereochemistry. Rotation (-).



RN 849370-77-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propyn-1-yl)-, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



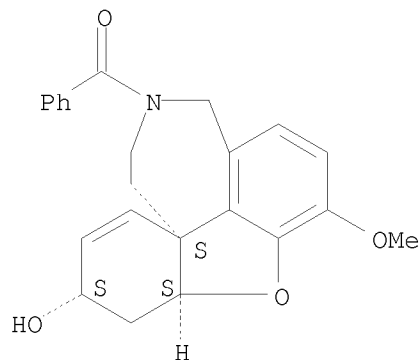
RN 849370-78-1 CAPLUS

CN Methanone, phenyl[(4aS,6S,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-

10/573,517

benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl)- (CA INDEX NAME)

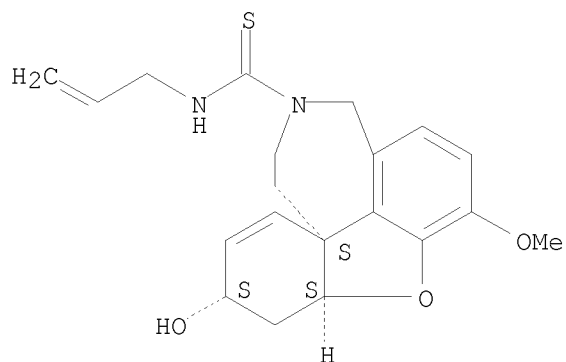
Absolute stereochemistry. Rotation (-).



RN 849370-79-2 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carbothioamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-2-propen-1-yl-, (8aS,10S,12aS)-  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

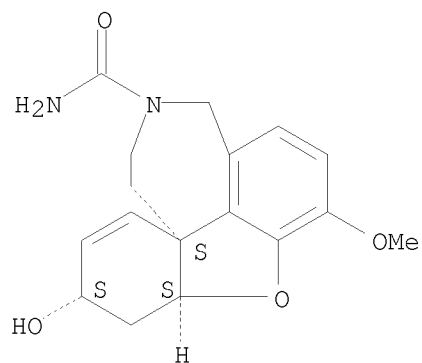


RN 849370-80-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

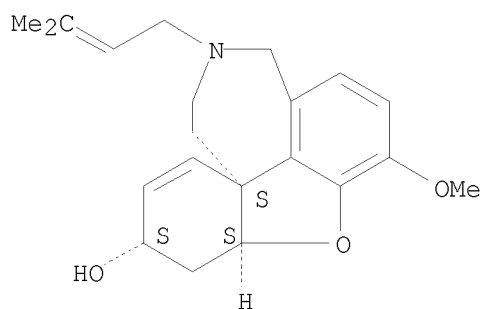
10/573,517



RN 849370-81-6 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 1,2,3,4,8,8a-hexahydro-10-methoxy-2-(3-methyl-2-buten-1-yl)-, (4aS,7S,8aS)- (CA INDEX NAME)

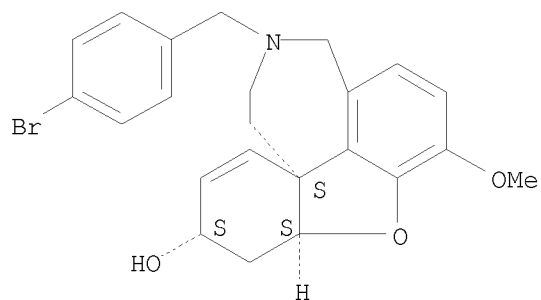
Absolute stereochemistry. Rotation (-).



RN 849370-82-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[(4-bromophenyl)methyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

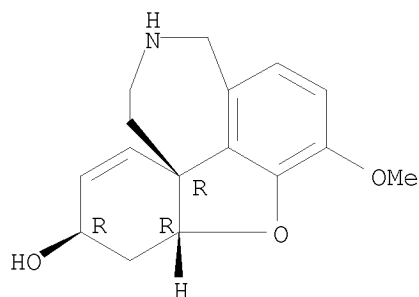


RN 849370-83-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10R,12aR)- (CA INDEX NAME)

10/573,517

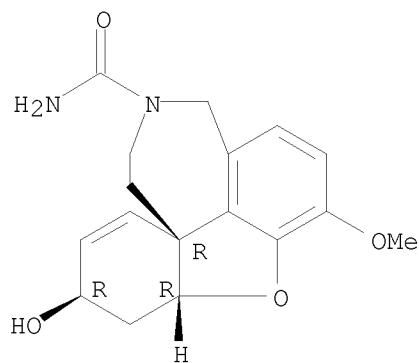
Absolute stereochemistry. Rotation (+).



RN 849370-84-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6R,8aR)- (CA INDEX NAME)

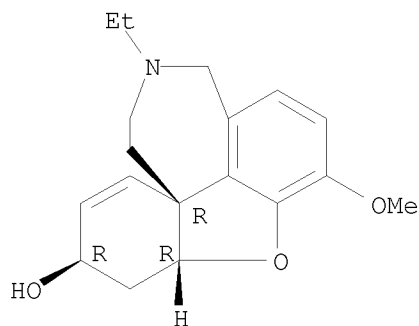
Absolute stereochemistry. Rotation (+).



RN 849370-85-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-ethyl-4a,5,9,10,11,12-  
hexahydro-3-methoxy-, (4aR,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

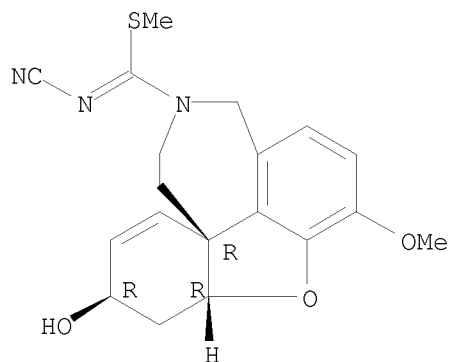


RN 849370-86-1 CAPLUS

10/573,517

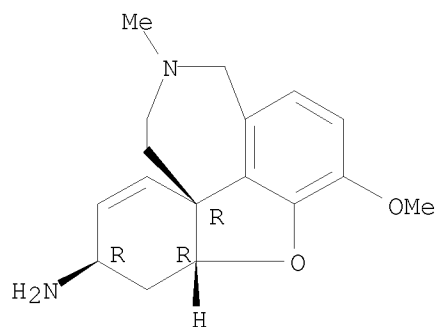
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboximidothioic acid,  
N-cyano-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, methyl ester,  
(8aR,10R,12aR)- (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



RN 849370-87-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-amine, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:3), (4aR,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

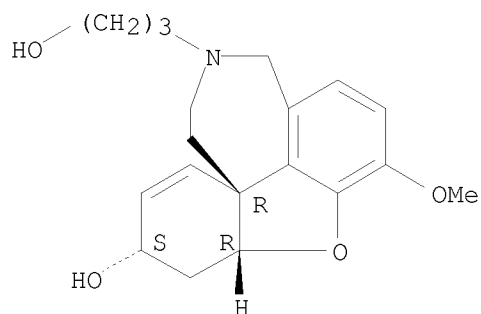


● 3 HCl

RN 849370-88-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanol,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)- (CA INDEX NAME)

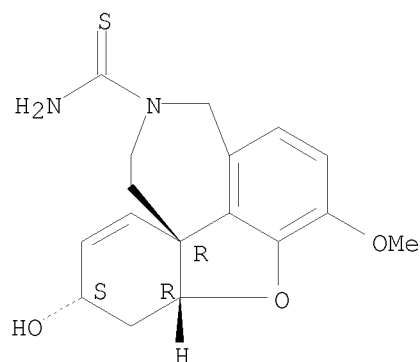
Absolute stereochemistry. Rotation (+).

10/573,517



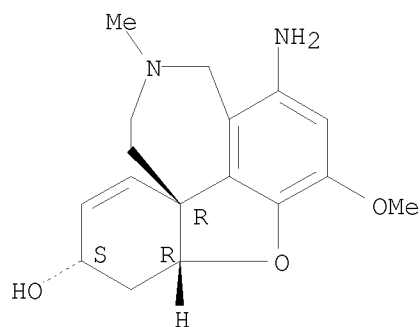
RN 849370-89-4 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 849370-90-7 CAPLUS  
CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 5-amino-3,4,8a,9-  
tetrahydro-7-methoxy-3-methyl-, (8aR,10S,12aR)- (CA INDEX NAME)

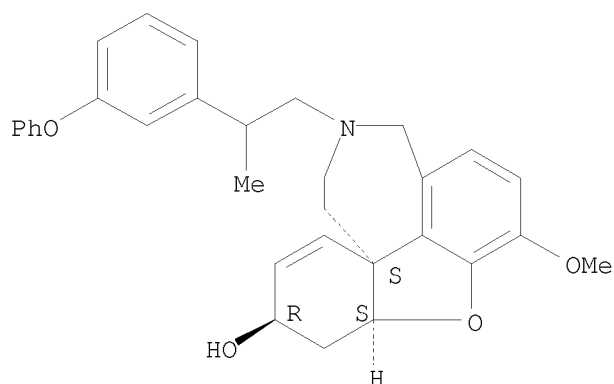
Absolute stereochemistry. Rotation (+).



RN 849370-91-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-[2-(3-phenoxyphenyl)propyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

10/573,517

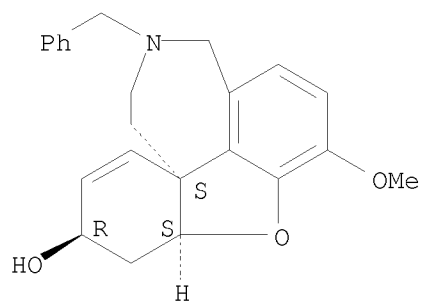
Absolute stereochemistry.



RN 849370-92-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(phenylmethyl)-, (4aS,6R,8aS)- (CA INDEX NAME)

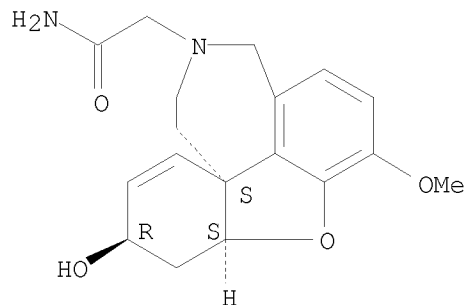
Absolute stereochemistry. Rotation (-).



RN 849370-93-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetamide, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

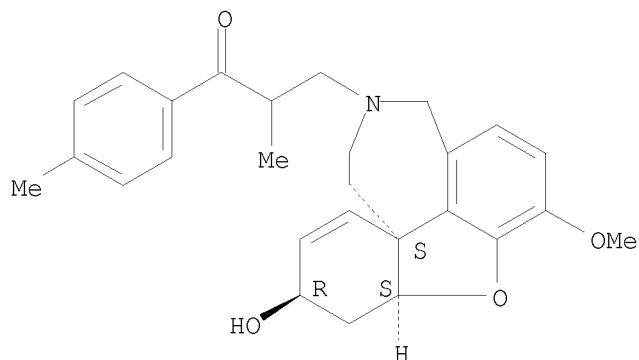
Absolute stereochemistry. Rotation (-).



10/573,517

RN 849370-94-1 CAPLUS  
CN 1-Propanone, 2-methyl-1-(4-methylphenyl)-3-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, hydrochloride (1:1) (CA INDEX NAME)

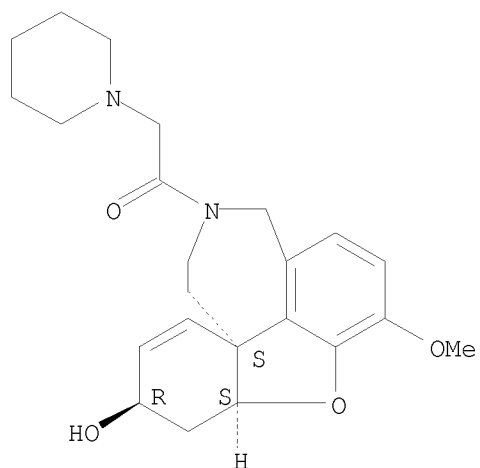
Absolute stereochemistry.



● HCl

RN 849370-95-2 CAPLUS  
CN Ethanone, 2-(1-piperidinyl)-1-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

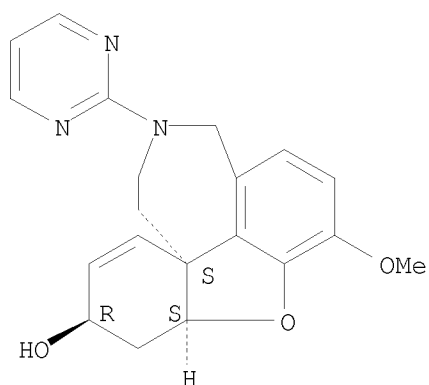


RN 849370-96-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-pyrimidinyl)-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



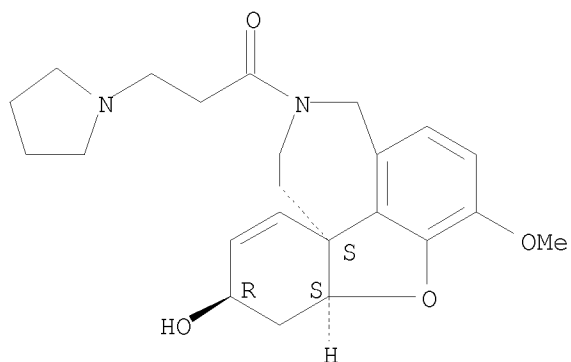
10/573,517



RN 849370-97-4 CAPLUS

CN 1-Propanone, 3-(1-pyrrolidinyl)-1-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

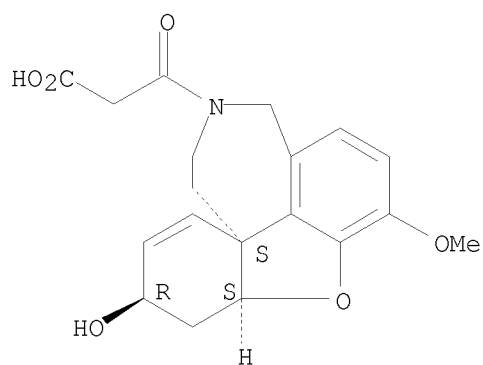


RN 849370-98-5 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-propanoic acid, 1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy- $\beta$ -oxo-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

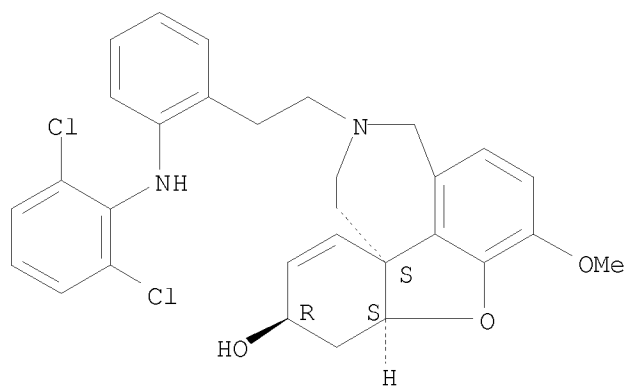
10/573,517



RN 849370-99-6 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 2-[2-[2-[(2,6-dichlorophenyl)amino]phenyl]ethyl]-1,2,3,4,8,8a-hexahydro-10-methoxy-, hydrochloride (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



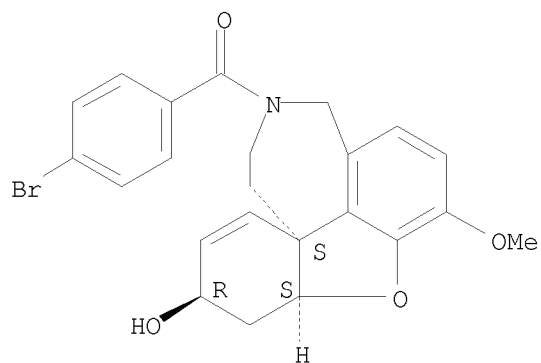
● HCl

RN 849371-00-2 CAPLUS

CN Methanone, (4-bromophenyl)[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

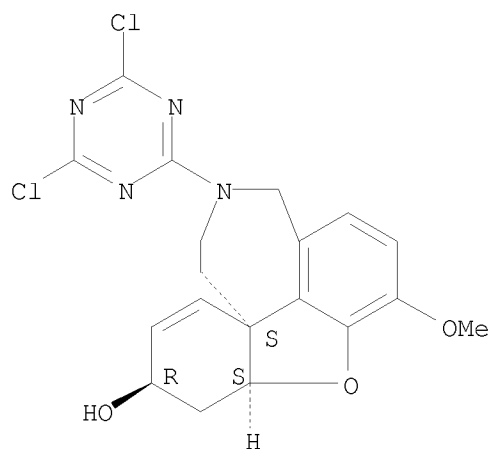
10/573,517



RN 849371-01-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(4,6-dichloro-1,3,5-triazin-2-yl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

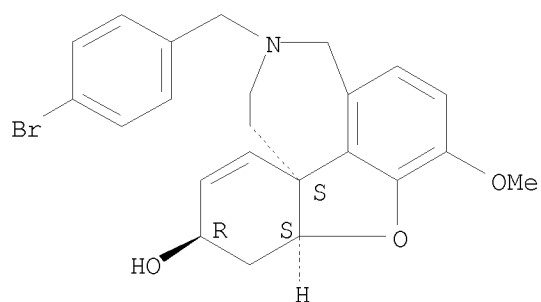


RN 849371-02-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[(4-bromophenyl)methyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

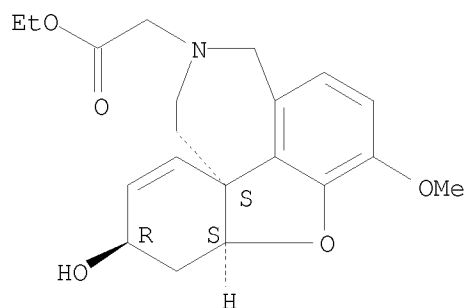
Absolute stereochemistry. Rotation (-).

10/573,517



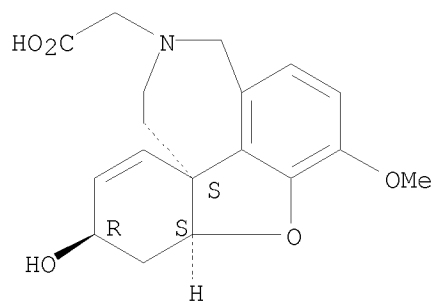
RN 849371-03-5 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-acetic acid,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, ethyl ester, (8aS,10R,12aS)-  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 849371-04-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

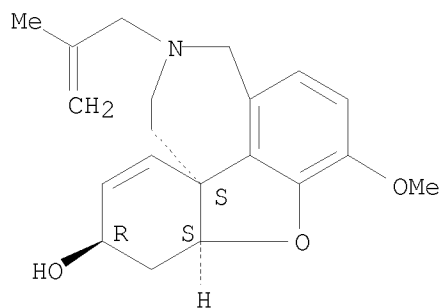
Absolute stereochemistry. Rotation (-).



RN 849371-05-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-(2-methyl-2-propen-1-yl)-, hydrochloride (1:1), (4aS,6R,8aS)-  
(CA INDEX NAME)

10/573,517

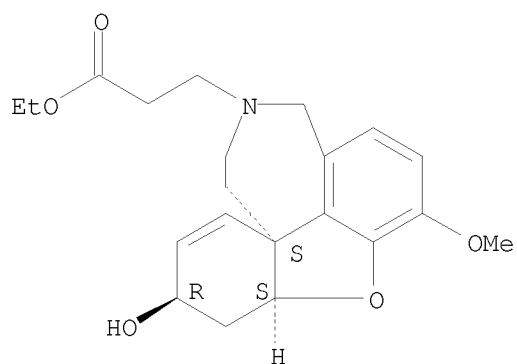
Absolute stereochemistry. Rotation (-).



● HCl

RN 849371-06-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, ethyl ester, hydrochloride  
(1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

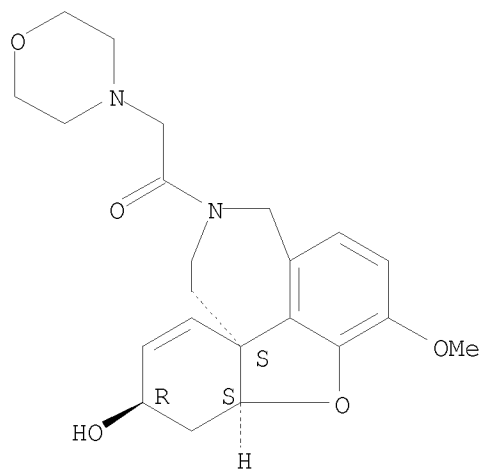


● HCl

RN 849371-07-9 CAPLUS  
CN Ethanone, 2-(4-morpholinyl)-1-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-  
3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX  
NAME)

Absolute stereochemistry. Rotation (-).

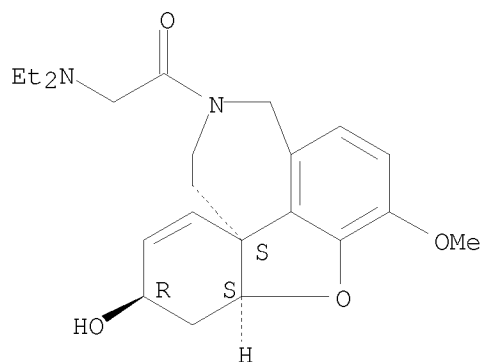
10/573,517



RN 849371-08-0 CAPLUS

CN Ethanone, 2-(diethylamino)-1-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

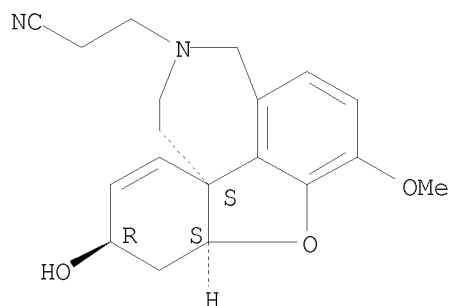


RN 849371-09-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanenitrile, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

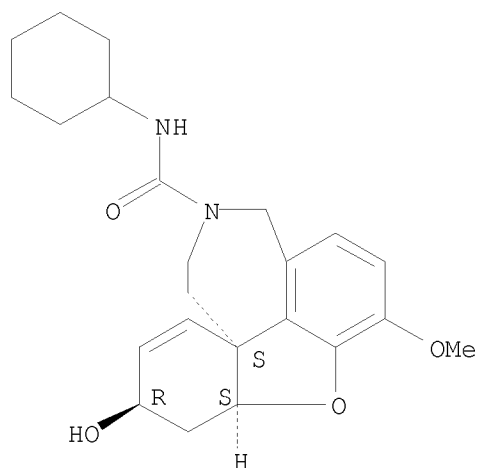
10/573,517



RN 849371-10-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-cyclohexyl-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (-).

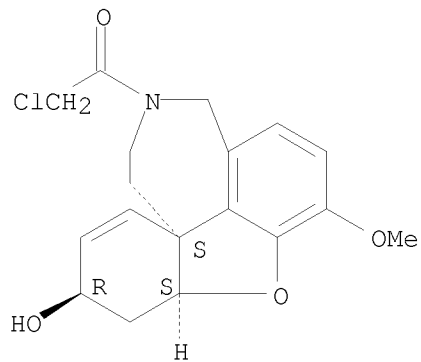


RN 849371-11-5 CAPLUS

CN Ethanone, 2-chloro-1-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-  
methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

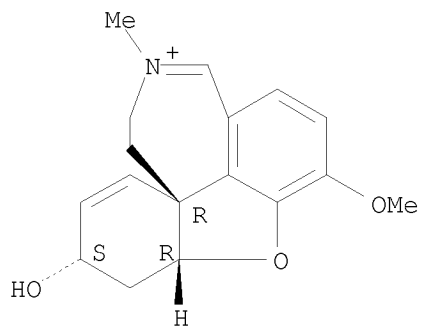
10/573,517



RN 849371-12-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



● Br<sup>-</sup>

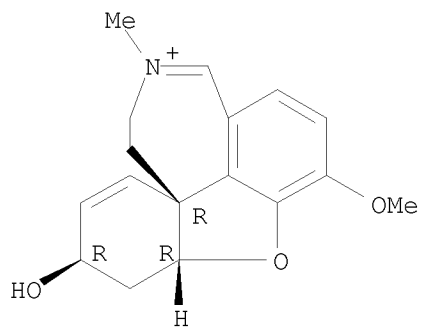
RN 849371-13-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aR,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

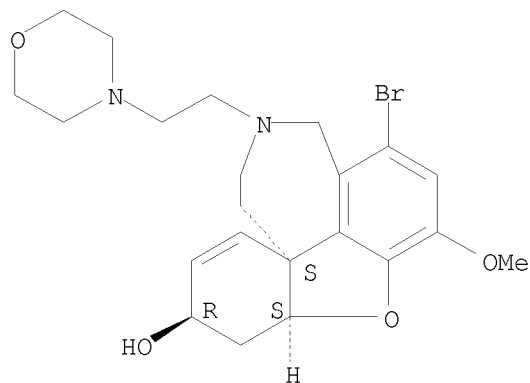


10/573,517



RN 849371-14-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

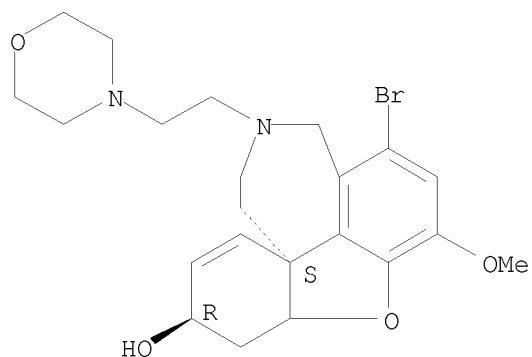
Absolute stereochemistry. Rotation (-).



RN	849371-15-9	CAPLUS
CN	6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-(4-morpholinyl)ethyl]-, (6R,8aS)- (CA INDEX NAME)	

Absolute stereochemistry.

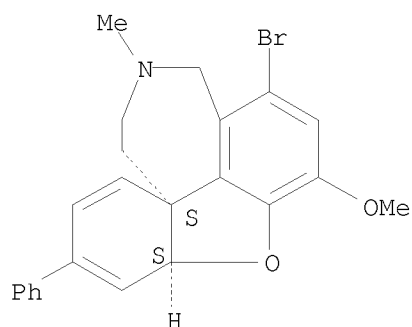
10/573,517



RN 849371-16-0 CAPLUS

CN 4aH-Benzofuro[3a,3,2-ef][2]benzazepine, 1-bromo-9,10,11,12-tetrahydro-3-methoxy-11-methyl-6-phenyl-, (4aS,8aS)- (CA INDEX NAME)

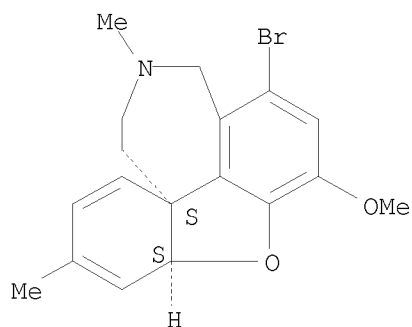
Absolute stereochemistry.



RN 849371-17-1 CAPLUS

CN 1H,2H,8aH-Benzofuro[3a,3,2-ef][2]benzazepine, 5-bromo-3,4-dihydro-7-methoxy-3,10-dimethyl-, (8aS,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

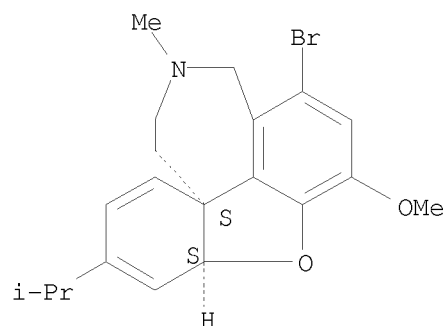


RN 849371-18-2 CAPLUS

CN 8aH-Benzofuro[3a,3,2-ef][2]benzazepine, 5-bromo-1,2,3,4-tetrahydro-7-methoxy-3-methyl-10-(1-methylethyl)-, (8aS,12aS)- (CA INDEX NAME)

10/573,517

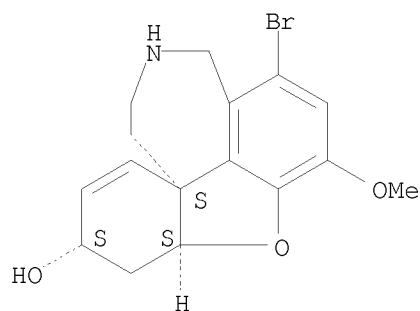
Absolute stereochemistry.



RN 849439-75-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6S,8aS)- (CA INDEX NAME)

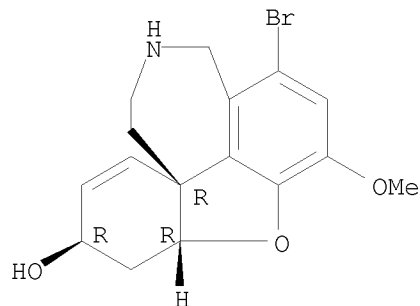
Absolute stereochemistry. Rotation (-).



RN 849439-76-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 849439-78-7 CAPLUS

CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[4-(1-

10/573,517

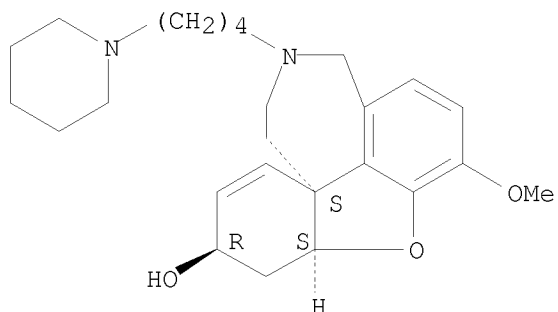
piperidinyl)butyl]-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (9CI)  
(CA INDEX NAME)

CM 1

CRN 849439-77-6

CMF C25 H36 N2 O3

Absolute stereochemistry.

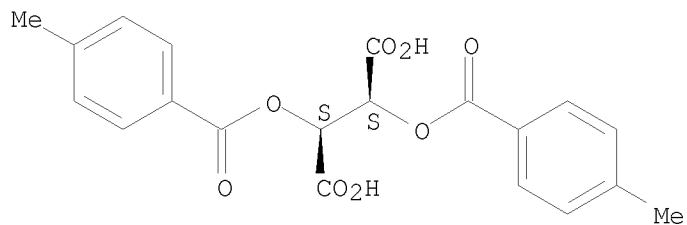


CM 2

CRN 32634-68-7

CMF C20 H18 O8

Absolute stereochemistry. Rotation (+).

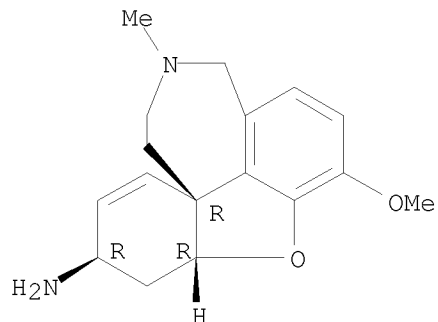


RN 849439-79-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-amine, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

10/573,517



IT 41303-74-6, Norgalanthamine 198987-71-2  
496842-35-4

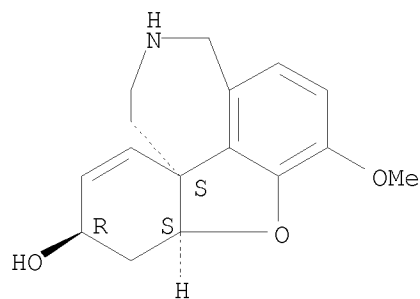
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of N-alkylgalanthamines and related compds. for the treatment  
of central nervous system diseases)

RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-  
methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

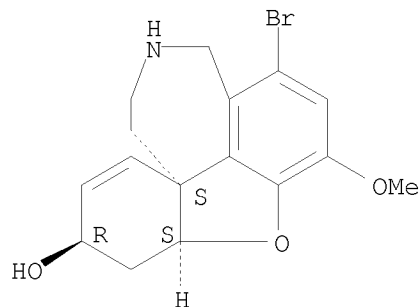
Absolute stereochemistry. Rotation (-).



RN 198987-71-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-  
hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

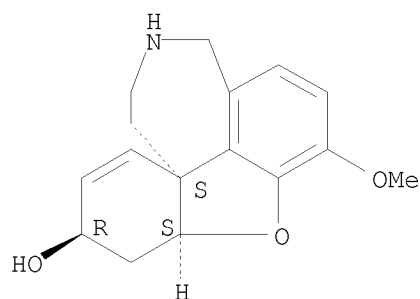


10/573,517

RN 496842-35-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, hydrochloride (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

IT 849371-19-3P 849371-20-6P 849371-21-7P

849371-30-8P

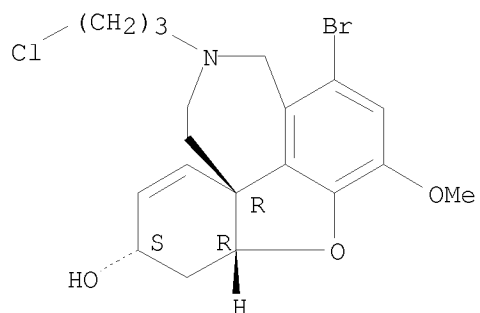
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of N-alkylgalanthamines and related compds. for the treatment of central nervous system diseases)

RN 849371-19-3 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 12-bromo-2-(3-chloropropyl)-1,2,3,4,8,8a-hexahydro-10-methoxy-, (4aR,7S,8aR)- (CA INDEX NAME)

Absolute stereochemistry.

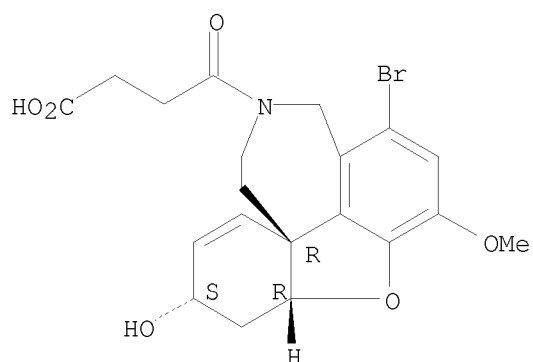


RN 849371-20-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-butanoic acid, 5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-γ-oxo-, (8aR,10S,12aR)- (CA INDEX NAME)

Absolute stereochemistry.

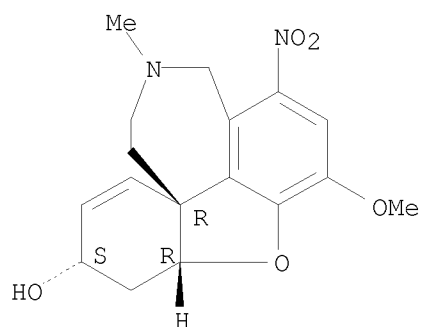
10/573,517



RN 849371-21-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-1-nitro-, (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

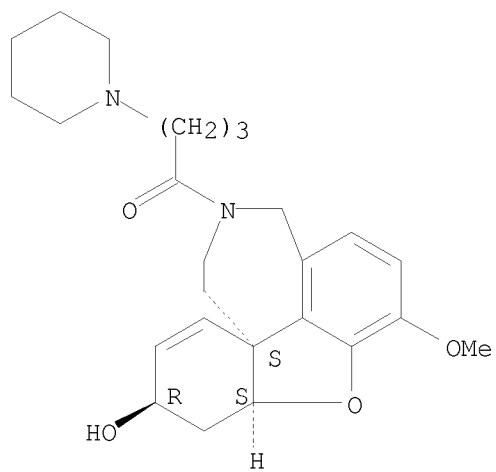


RN 849371-30-8 CAPLUS

CN 1-Butanone, 4-(1-piperidiny1)-1-[(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517





L61 ANSWER 18 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:300304 CAPLUS

DOCUMENT NUMBER: 142:367688

TITLE: Use of galanthamine and the derivatives thereof in the production of medicaments for the treatment of postoperative delirium

INVENTOR(S): Bodenteich, Angelika; Frantsits, Werner J.; Pirich, Eberhard; Czollner, Laszlo

PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria

SOURCE: PCT Int. Appl., 62 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030332	A2	20050407	WO 2004-AT251	20040712
WO 2005030332	A3	20050602		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2506282	A1	20050407	CA 2004-2506282	20040712
EP 1667769	A2	20060614	EP 2004-737381	20040712
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR			
NO 2005002177	A	20050624	NO 2005-2177	20050503
MX 2005PA05570	A	20051018	MX 2005-PA5570	20050525
US 20060111341	A1	20060525	US 2005-537568	20050715
PRIORITY APPLN. INFO.:			AT 2003-1538	A 20030929
			WO 2004-AT251	W 20040712

OTHER SOURCE(S): MARPAT 142:367688

AB The invention discloses the use of galanthamine and the cholinergically active derivs. thereof in the production of medicaments for preventive treatment of postoperative delirium and/or subsyndronal postoperative delirium. Galanthamine, the galanthamine derivative(4aS,6R,8aS)-6-hydroxy-3-methoxy-11-methyl-4a,5,9,10-tetrahydro-6H-benzofuro[3a,3,2-ef][2]benzazepinium bromide, and analogous salts, hydrates or solvates are suited for use according to the invention.

IT 357-70-0, Galanthamine 357-70-0D, Galanthamine, derivs.

1953-04-4, Reminyl 41303-74-6 183626-04-2

198987-71-2 198987-76-7 198987-77-8

198987-78-9 198987-80-3 198987-81-4

198987-82-5 198987-83-6 198988-00-0

198988-02-2 198988-03-3 198988-06-6

198988-07-7 198988-08-8 198988-09-9

198988-10-2 198988-11-3 198988-15-7

198988-17-9 198988-24-8 198988-25-9

198988-29-3 198988-30-6 198988-48-6  
 198988-49-7 198988-50-0 198988-52-2  
 198988-57-7 198988-58-8 198988-63-5  
 199014-24-9 210474-61-6D, salt 273759-74-3  
 365570-18-9 365570-21-4 365570-23-6  
 365570-24-7 365570-25-8 365570-26-9  
 365570-28-1 365570-30-5 365570-31-6  
 365570-33-8 365570-37-2 365570-38-3  
 365570-39-4 365570-40-7 365570-41-8  
 365570-42-9 365570-44-1 365570-45-2  
 365570-46-3 365570-47-4 365570-48-5  
 365570-49-6 365570-50-9 365570-51-0  
 365570-52-1 365570-54-3 365570-56-5  
 365570-57-6 365570-58-7 365570-59-8  
 365570-60-1 365570-61-2 365570-62-3  
 365570-63-4 365570-64-5 365570-65-6  
 365570-66-7 365570-67-8 365570-68-9  
 365570-69-0 365570-70-3 365570-71-4  
 365570-72-5 365570-73-6 365570-74-7  
 365570-75-8 365570-76-9 365570-79-2  
 365570-80-5 365570-81-6 365570-83-8  
 365570-85-0 365570-87-2 365571-13-7  
 365571-16-0 365571-20-6 365571-25-1  
 365571-36-4 365571-37-5 365571-38-6  
 365571-39-7 365571-41-1 365571-42-2  
 365571-43-3 365571-44-4 365571-46-6  
 365571-47-7 365571-49-9 365571-50-2  
 365571-69-3 365571-70-6 365571-76-2  
 365571-86-4 366485-20-3 849232-34-4  
 849232-39-9 849232-43-5 849232-44-6  
 849232-55-9 849232-64-0 849232-68-4  
 849232-69-5 849232-76-4 849232-80-0  
 849232-91-3 849232-96-8 849232-97-9  
 849232-98-0 849232-99-1 849233-00-7  
 849355-36-8 849355-37-9 849355-38-0  
 849355-39-1 849355-40-4 849355-41-5  
 849355-42-6

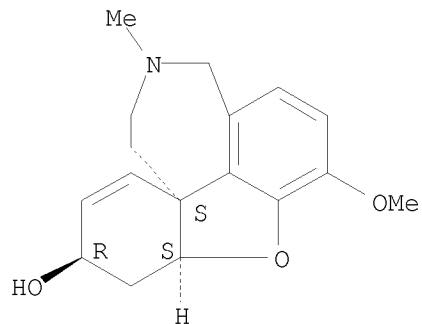
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (galanthamine and galanthamine derivs. for treatment of postoperative  
 delirium)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
 methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

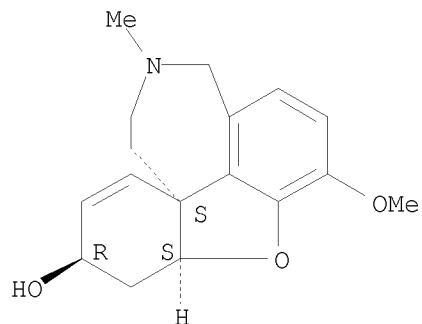
10/573,517



RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

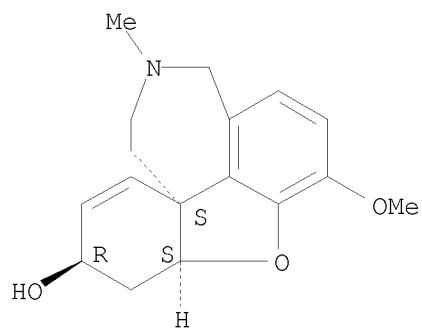
Absolute stereochemistry. Rotation (-).



RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



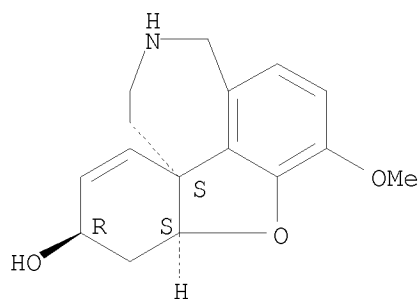
● HBr

10/573,517

RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

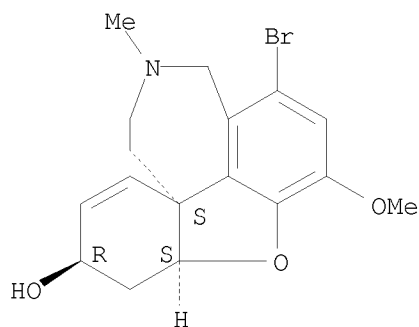
Absolute stereochemistry. Rotation (-).



RN 183626-04-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

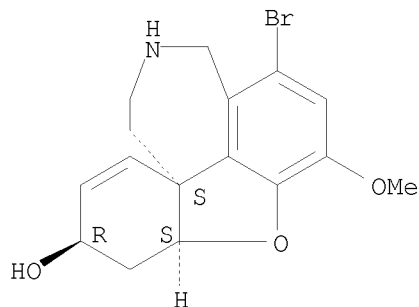
Absolute stereochemistry. Rotation (-).



RN 198987-71-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

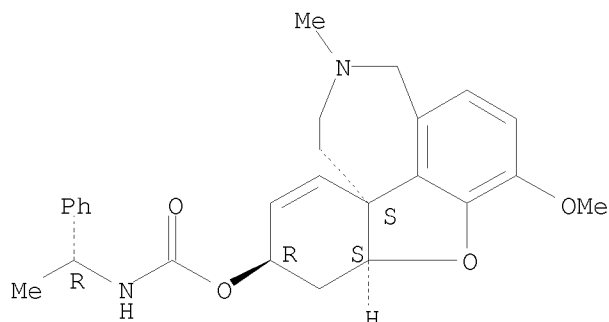


10/573,517

RN 198987-76-7 CAPLUS

CN Carbamic acid, N-[(1R)-1-phenylethyl]-, (8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester (CA INDEX NAME)

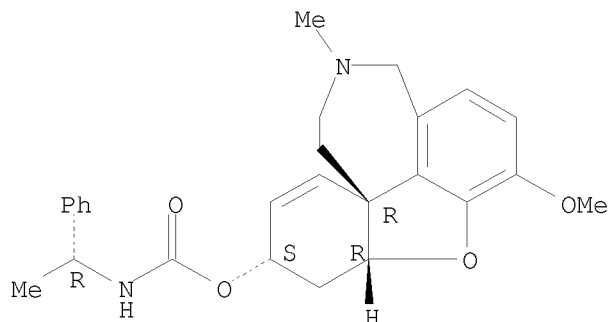
Absolute stereochemistry. Rotation (-).



RN 198987-77-8 CAPLUS

CN Carbamic acid, [(1R)-1-phenylethyl]-, (4aR,6S,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

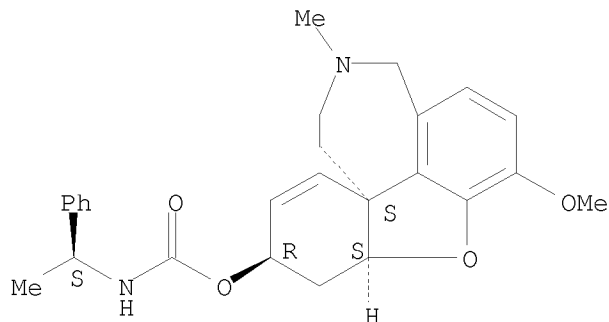


RN 198987-78-9 CAPLUS

CN Carbamic acid, N-[(1S)-1-phenylethyl]-, (8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

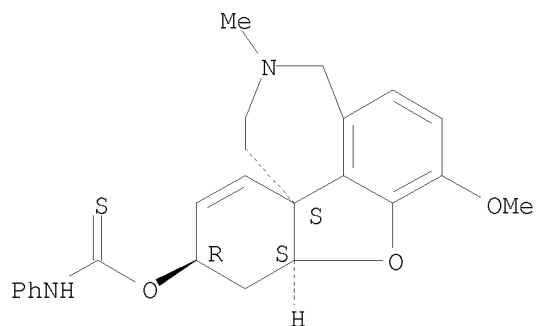
10/573,517



RN 198987-80-3 CAPLUS

CN Carbamothioic acid, N-phenyl-, O-[(8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl] ester (CA INDEX NAME)

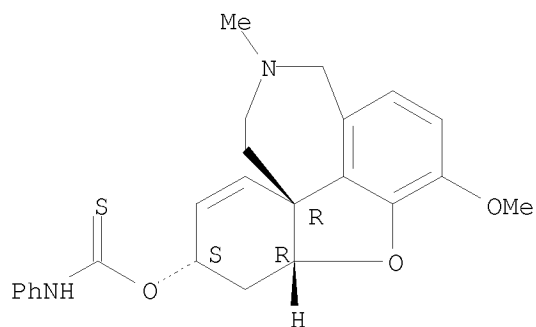
Absolute stereochemistry. Rotation (-).



RN 198987-81-4 CAPLUS

CN Carbamothioic acid, N-phenyl-, O-[(8aR,10S,12aR)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl] ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



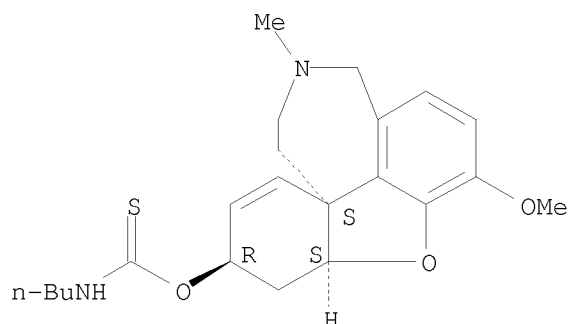
RN 198987-82-5 CAPLUS

CN Carbamothioic acid, N-butyl-, O-[(4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA

10/573,517

INDEX NAME)

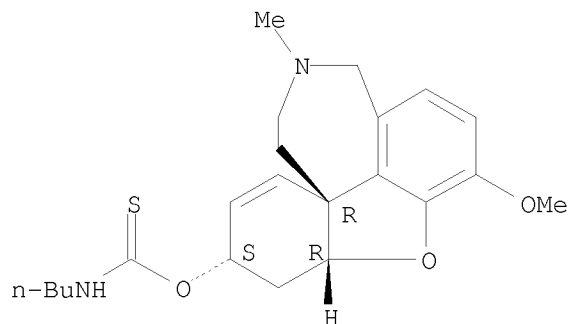
Absolute stereochemistry. Rotation (-).



RN 198987-83-6 CAPLUS

CN Carbamothioic acid, N-butyl-, O-[(4aR,6S,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

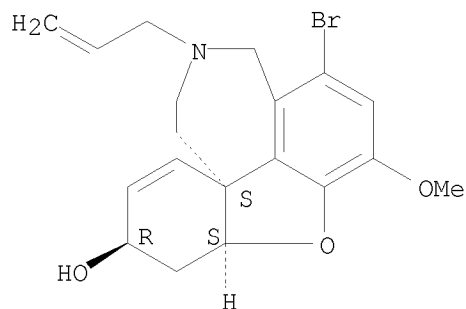
Absolute stereochemistry. Rotation (+).



RN 198988-00-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propen-1-yl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

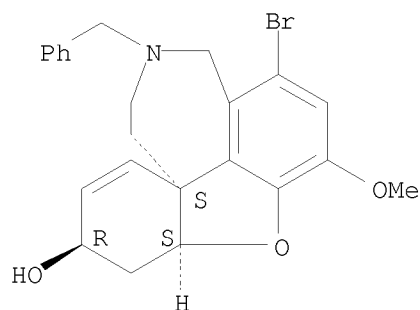


10/573,517

RN 198988-02-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-(phenylmethyl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

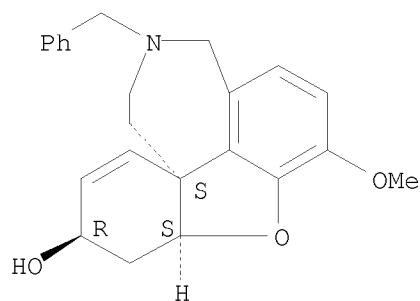
Relative stereochemistry.



RN 198988-03-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(phenylmethyl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

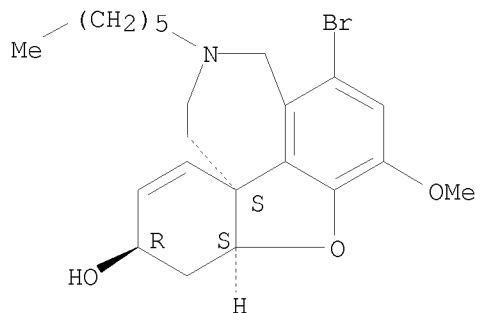
Relative stereochemistry.



RN 198988-06-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-11-hexyl-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

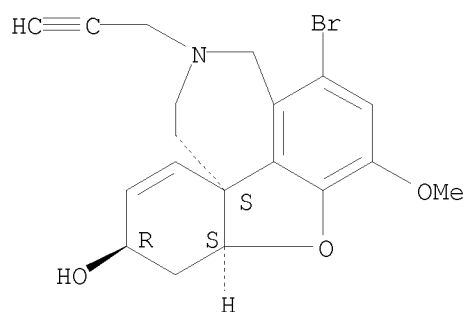




10/573,517

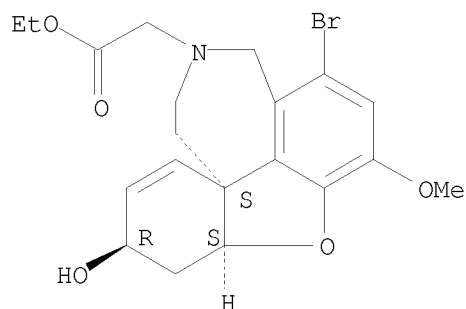
RN 198988-07-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propyn-1-yl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 198988-08-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetic acid, 1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, ethyl ester, (4aR,6S,8aR)-rel- (CA INDEX NAME)

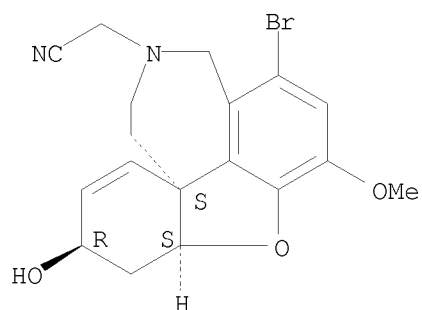
Relative stereochemistry.



RN 198988-09-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetonitrile, 1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

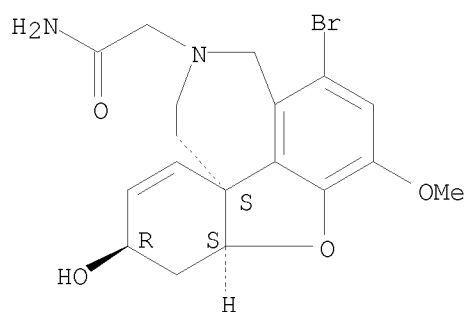
10/573,517



RN 198988-10-2 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-acetamide,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aR,7S,8aR)-rel- (CA  
INDEX NAME)

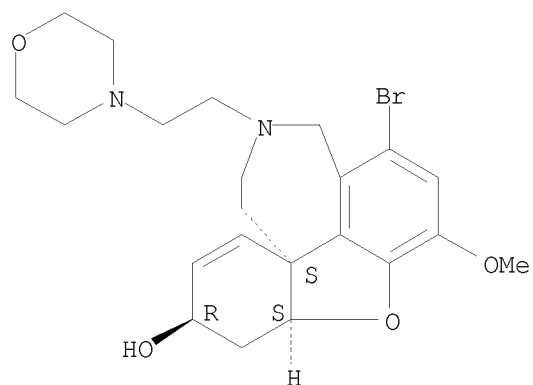
Relative stereochemistry.



RN 198988-11-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-  
hexahydro-3-methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aR,6S,8aR)-rel- (CA  
INDEX NAME)

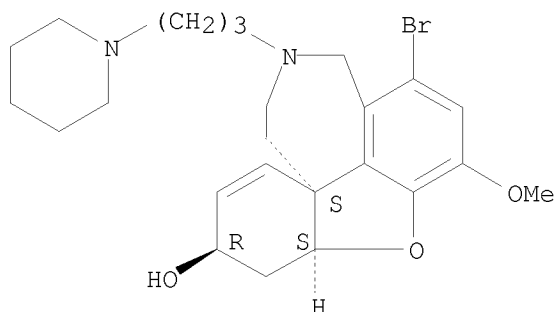
Relative stereochemistry.



10/573,517

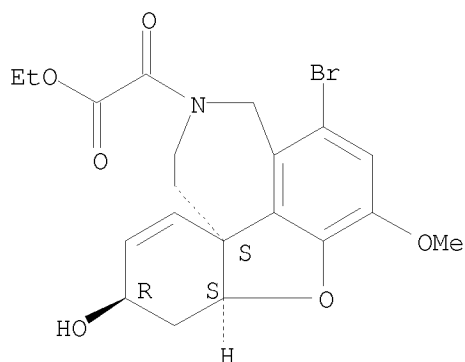
RN 198988-15-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 198988-17-9 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-acetic acid, 5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy- $\alpha$ -oxo-, ethyl ester, (8aR,10S,12aR)-rel- (CA INDEX NAME)

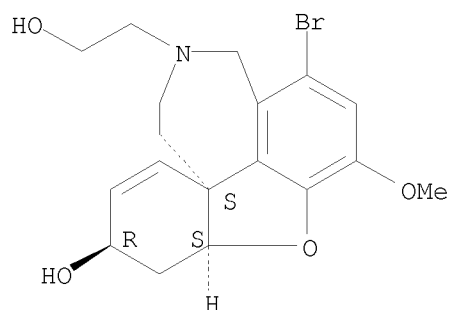
Relative stereochemistry.



RN 198988-24-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-ethanol, 1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

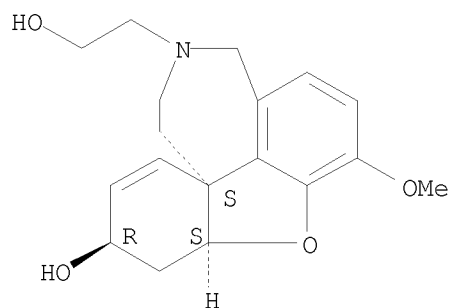
Relative stereochemistry.

10/573,517



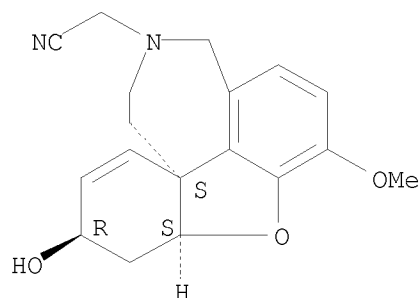
RN 198988-25-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-ethanol,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX  
NAME)

Relative stereochemistry.



RN 198988-29-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetonitrile,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX  
NAME)

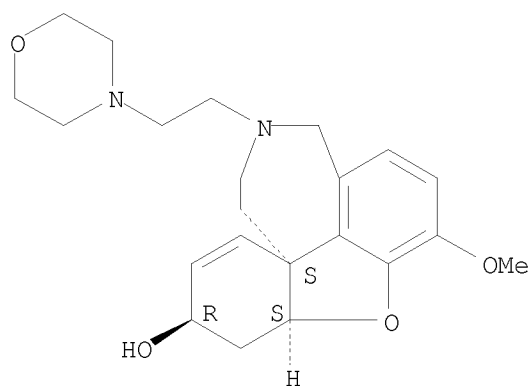
Relative stereochemistry.



RN 198988-30-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

10/573,517

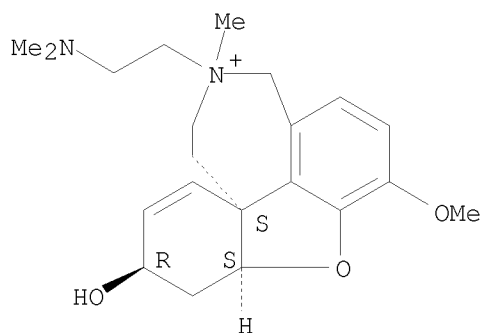
Relative stereochemistry.



RN 198988-48-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 3-[2-(dimethylamino)ethyl]-  
1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-, chloride (1:1),  
(8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



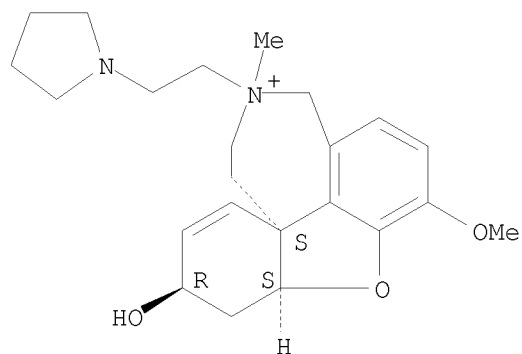
● Cl<sup>-</sup>

RN 198988-49-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-  
hydroxy-3-methoxy-11-methyl-11-[2-(1-pyrrolidinyl)ethyl]-, chloride (1:1),  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

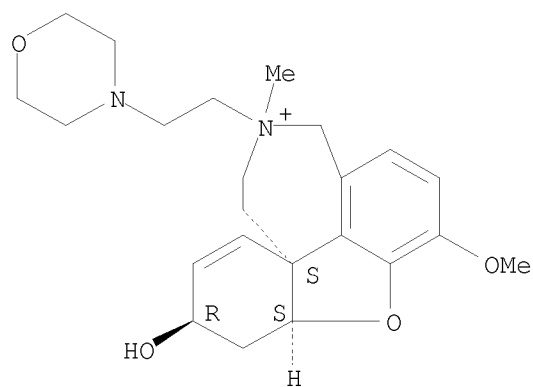
10/573,517



● Cl<sup>-</sup>

RN 198988-50-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[2-(4-morpholinyl)ethyl]-, chloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

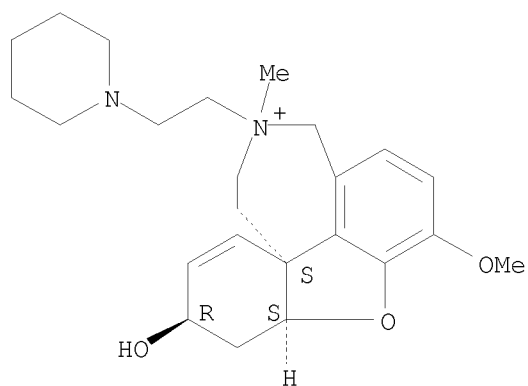


● Cl<sup>-</sup>

RN 198988-52-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[2-(1-piperidiny)ethyl]-, chloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517

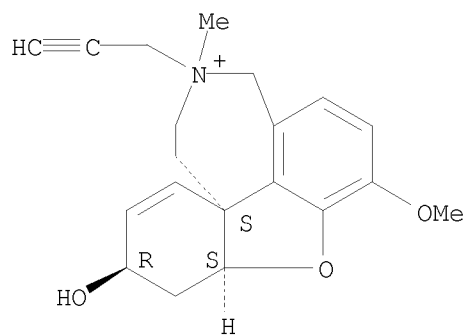


● Cl<sup>-</sup>

RN 198988-57-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-(2-propyn-1-yl)-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



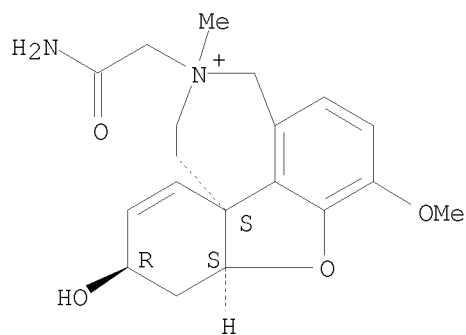
● Br<sup>-</sup>

RN 198988-58-8 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 2-(2-amino-2-oxoethyl)-1,2,3,4,8,8a-hexahydro-7-hydroxy-10-methoxy-2-methyl-, bromide (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

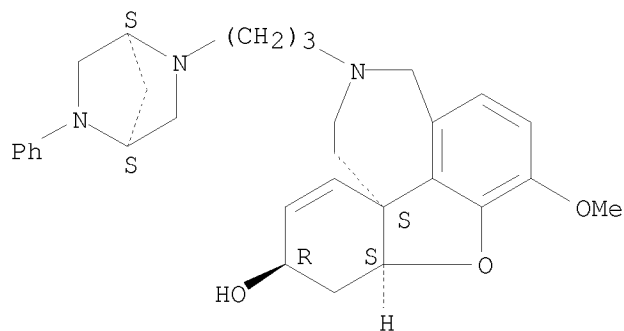
Absolute stereochemistry.

10/573,517



RN 198988-63-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-[(1R,4R)-5-phenyl-2,5-diazabicyclo[2.2.1]hept-2-yl]propyl]-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

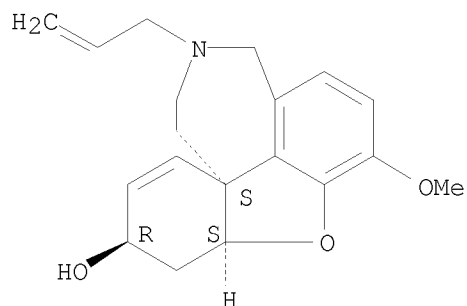


RN 199014-24-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propen-1-yl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



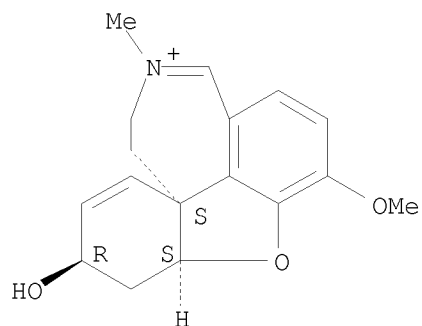
10/573,517



RN 210474-61-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10-tetrahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

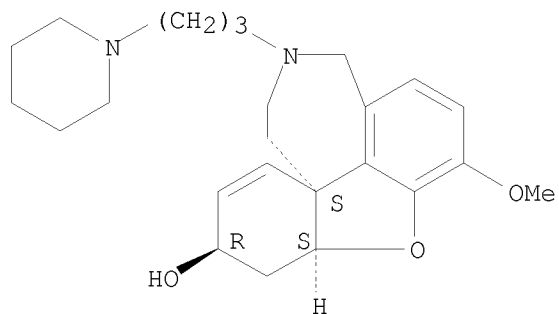
Absolute stereochemistry. Rotation (-).



RN 273759-74-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, hydrochloride (1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



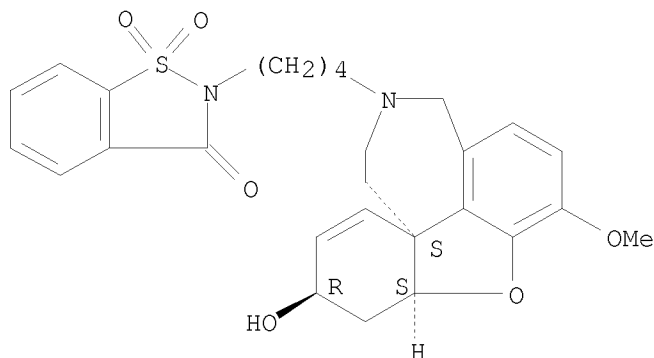
● 2 HCl

10/573,517

RN 365570-18-9 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]-, 1,1-dioxide (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 365570-21-4 CAPLUS

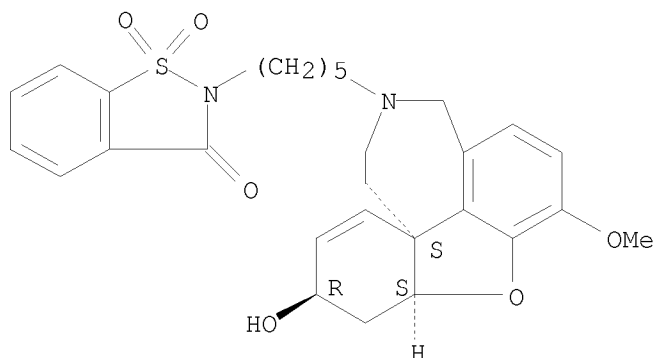
CN 1,2-Benzisothiazol-3(2H)-one, 2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]-, 1,1-dioxide, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365570-20-3

CMF C28 H32 N2 O6 S

Absolute stereochemistry. Rotation (-).



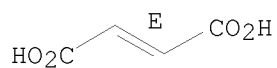
CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.

10/573,517

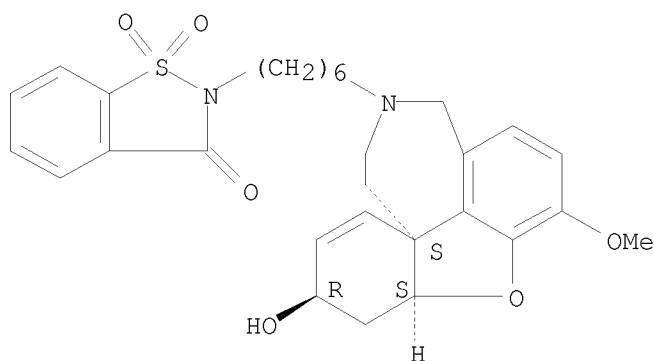


RN 365570-23-6 CAPLUS  
CN 1,2-Benzisothiazol-3(2H)-one, 2-[6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]-, 1,1-dioxide, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365570-22-5  
CMF C29 H34 N2 O6 S

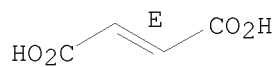
Absolute stereochemistry. Rotation (-).



CM 2

CRN 110-17-8  
CMF C4 H4 O4

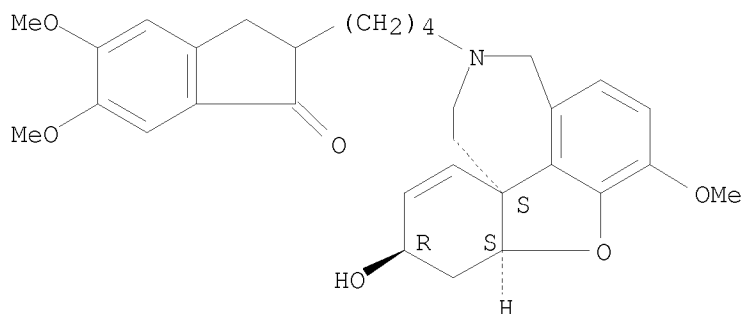
Double bond geometry as shown.



RN 365570-24-7 CAPLUS  
CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

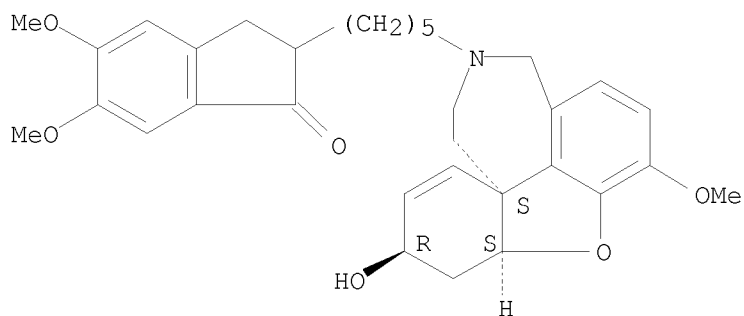
10/573,517



RN 365570-25-8 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 365570-26-9 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

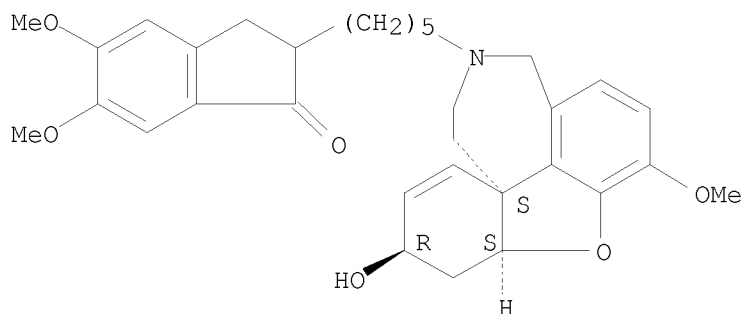
CM 1

CRN 365570-25-8

CMF C32 H39 N O6

Absolute stereochemistry.

10/573,517

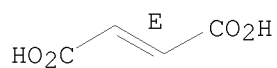


CM 2

CRN 110-17-8

CMF C4 H4 O4

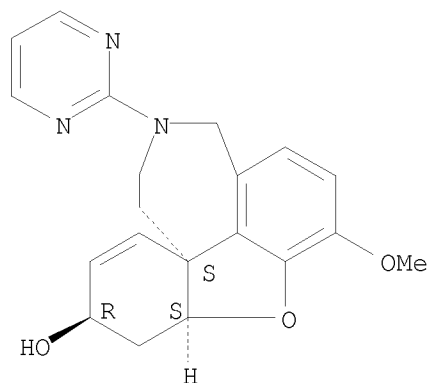
Double bond geometry as shown.



RN 365570-28-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-pyrimidinyl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

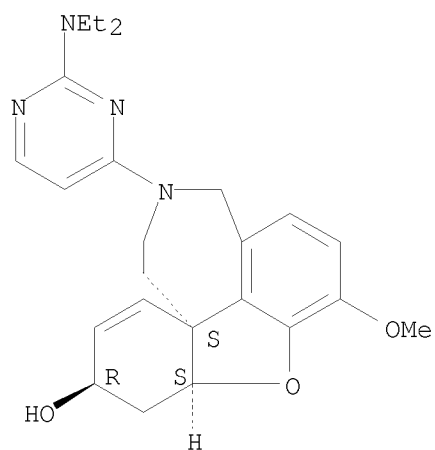


RN 365570-30-5 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 2-[2-(diethylamino)-4-pyrimidinyl]-1,2,3,4,8,8a-hexahydro-10-methoxy-, (4aR,7S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

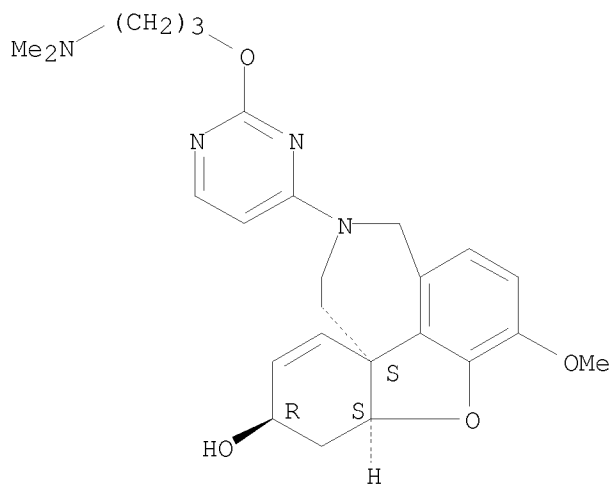
10/573,517



RN 365570-31-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[2-[3-(dimethylamino)propoxy]-4-pyrimidinyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

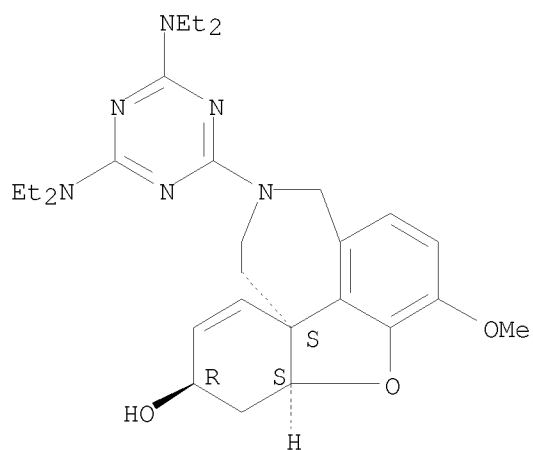


RN 365570-33-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4,6-bis(diethylamino)-1,3,5-triazin-2-yl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

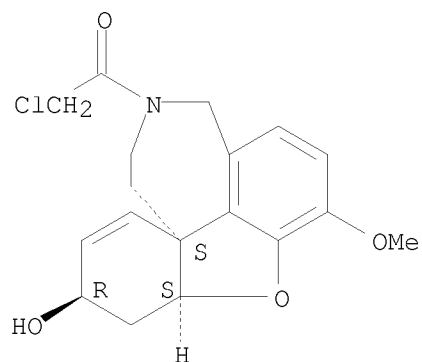
10/573,517



RN 365570-37-2 CAPLUS

CN Ethanone, 2-chloro-1-[(4aR,6S,8aR)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

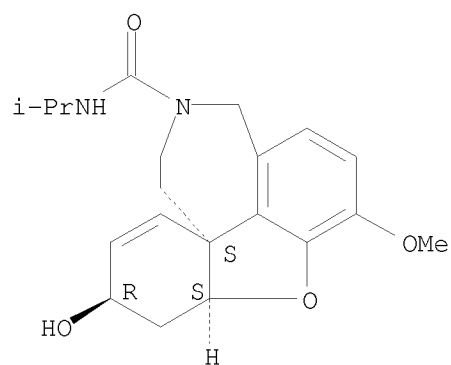


RN 365570-38-3 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide, 1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

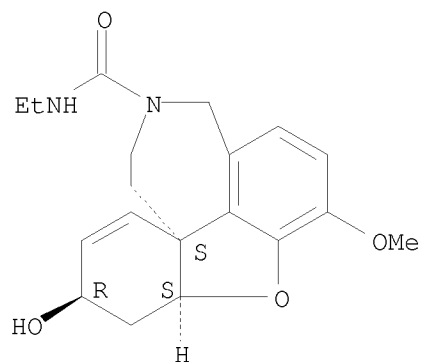
10/573,517



RN 365570-39-4 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carboxamide,  
N-ethyl-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aR,7S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.



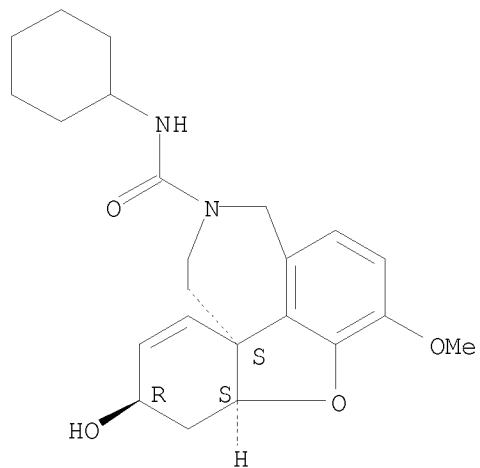
RN 365570-40-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-cyclohexyl-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel-  
(CA INDEX NAME)

Relative stereochemistry.

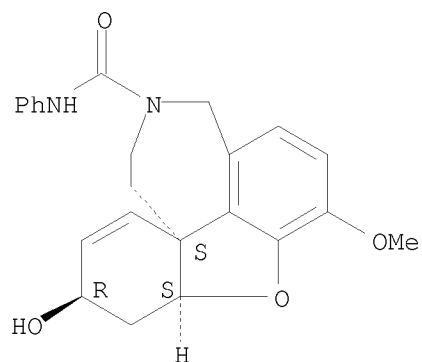


10/573,517



RN 365570-41-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-phenyl-, (4aR,6S,8aR)-rel- (CA  
INDEX NAME)

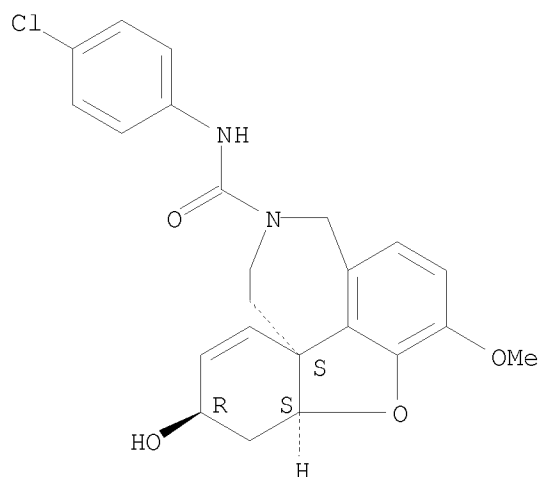
Relative stereochemistry.



RN 365570-42-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-(4-chlorophenyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

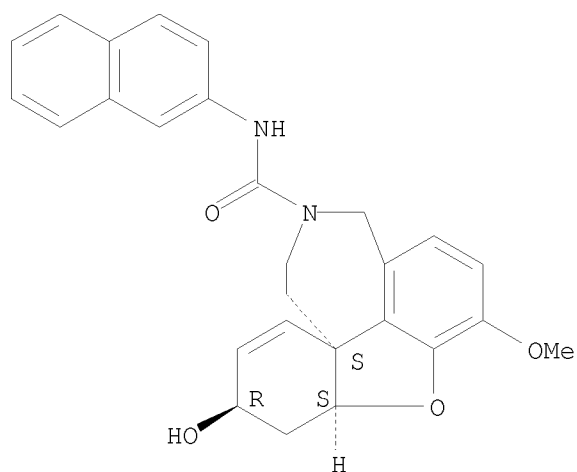
10/573,517



RN 365570-44-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-2-naphthalenyl-,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

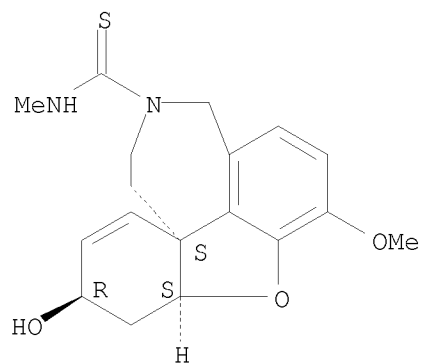


RN 365570-45-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-methyl-, (4aR,6S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.

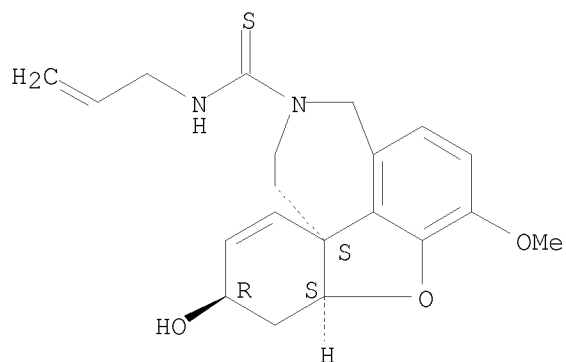
10/573,517



RN 365570-46-3 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carbothioamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-2-propen-1-yl-,  
(8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



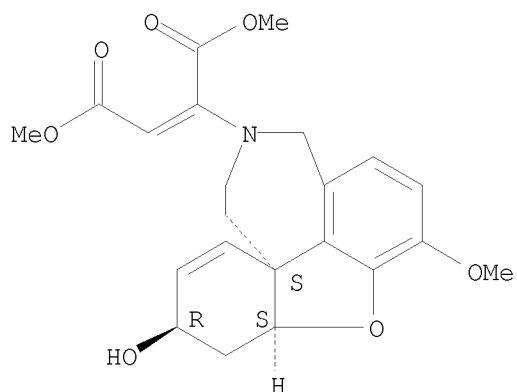
RN 365570-47-4 CAPLUS

CN 2-Butenedioic acid, 2-[(4aR,6S,8aR)-4a,5,9,10-tetrahydro-6-hydroxy-3-  
methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, 1,4-dimethyl  
ester, rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.

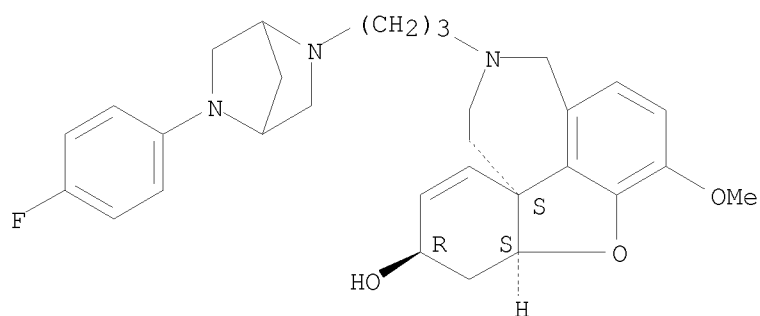
10/573,517



RN 365570-48-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[3-[5-(4-fluorophenyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]propyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

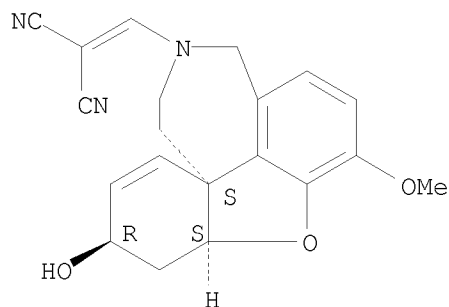
Relative stereochemistry.



RN 365570-49-6 CAPLUS

CN Propanedinitrile, 2-[[ (8aR,10S,12aR)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]methylene]-, rel- (CA INDEX NAME)

Relative stereochemistry.

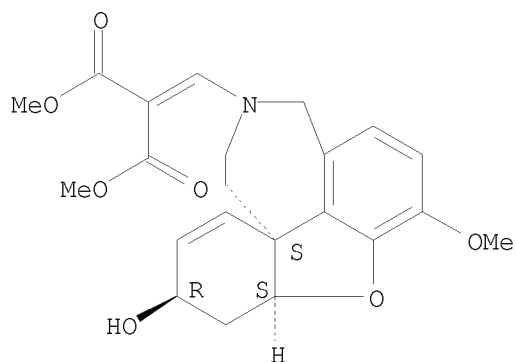


10/573,517

RN 365570-50-9 CAPLUS

CN Propanedioic acid, 2-[[ (4aR,6S,8aR)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]methylene]-, 1,3-dimethyl ester, rel- (CA INDEX NAME)

Relative stereochemistry.

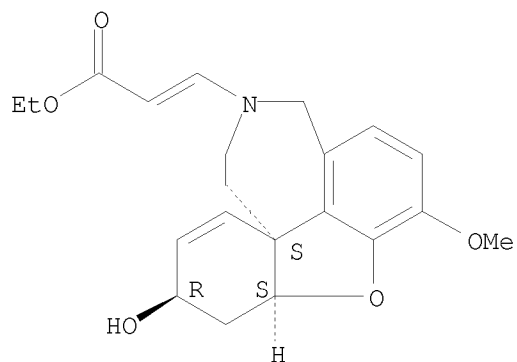


RN 365570-51-0 CAPLUS

CN 2-Propenoic acid, 3-[(4aR,6S,8aR)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, ethyl ester, rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.

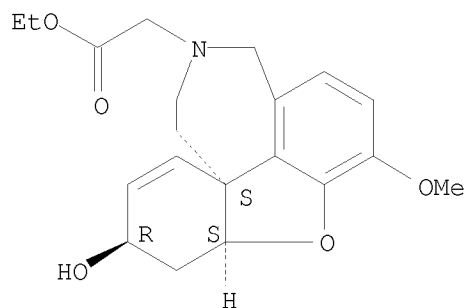


RN 365570-52-1 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-acetic acid, 1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, ethyl ester, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

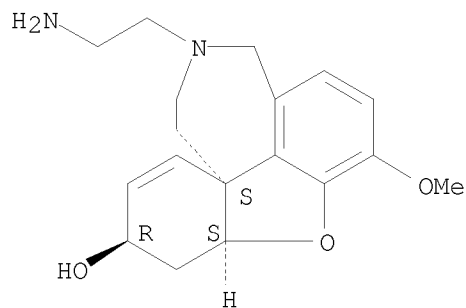
10/573,517



RN 365570-54-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(2-aminoethyl)-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

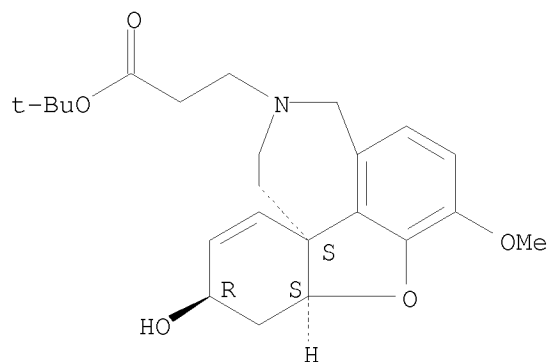
Absolute stereochemistry. Rotation (-).



RN 365570-56-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 1,1-dimethylethyl ester,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



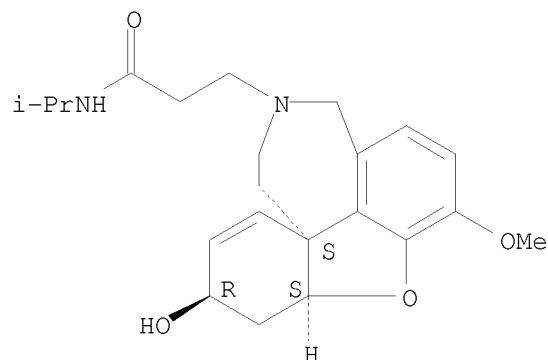
RN 365570-57-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-propanamide,

10/573,517

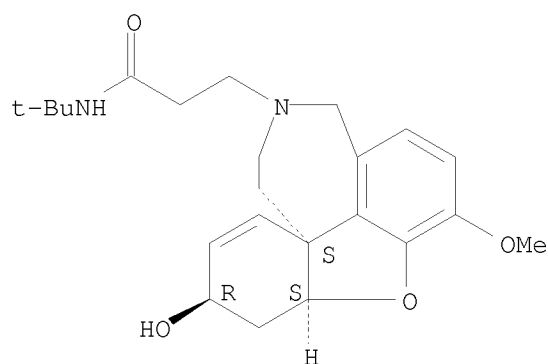
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-,  
(8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 365570-58-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanamide,  
N-(1,1-dimethylethyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

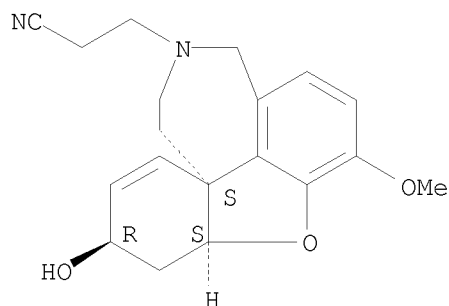
Relative stereochemistry.



RN 365570-59-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanenitrile,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX  
NAME)

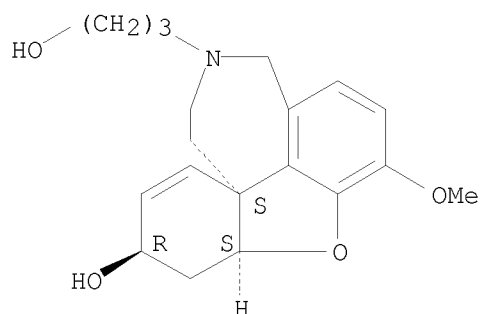
Relative stereochemistry.

10/573,517



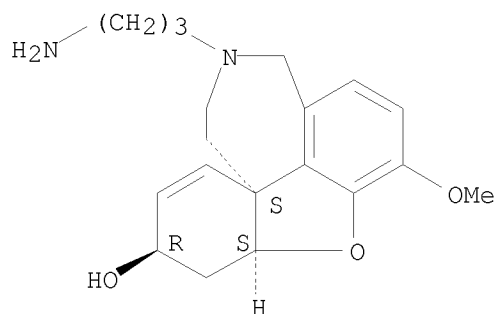
RN 365570-60-1 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanol,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX  
NAME)

Relative stereochemistry.



RN 365570-61-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(3-aminopropyl)-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

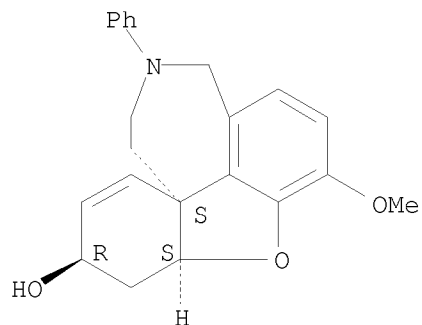


RN 365570-62-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-phenyl-, (4aS,6R,8aS)- (CA INDEX NAME)



10/573,517

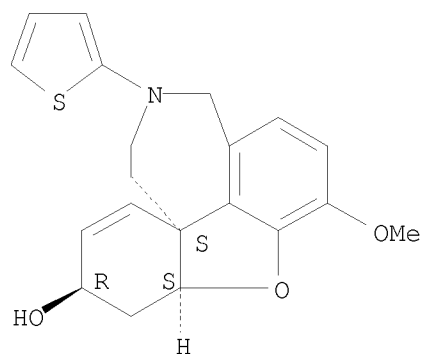
Absolute stereochemistry. Rotation (-).



RN 365570-63-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-thienyl)-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

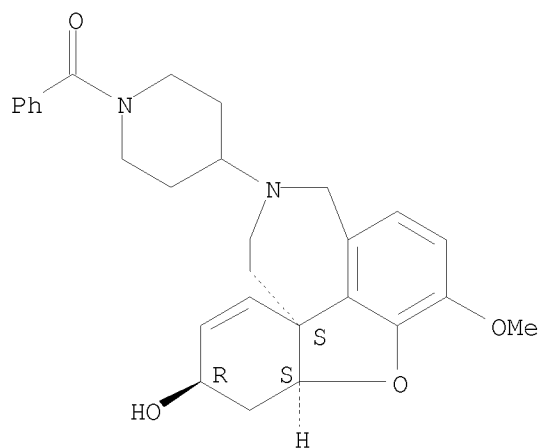


RN 365570-64-5 CAPLUS

CN Methanone, phenyl[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-1-piperidinyl]- (CA INDEX NAME)

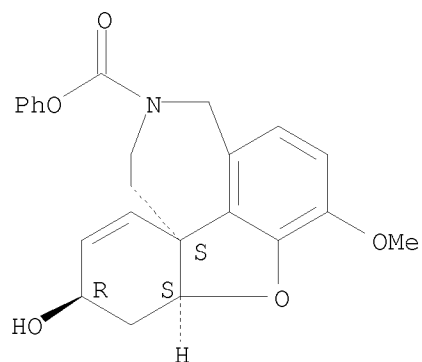
Absolute stereochemistry. Rotation (-).

10/573,517



RN 365570-65-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, phenyl ester, (4aS,6R,8aS)-  
(CA INDEX NAME)

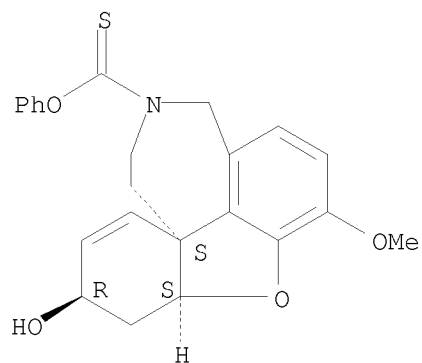
Absolute stereochemistry. Rotation (-).



RN 365570-66-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, O-phenyl ester, (4aS,6R,8aS)-  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

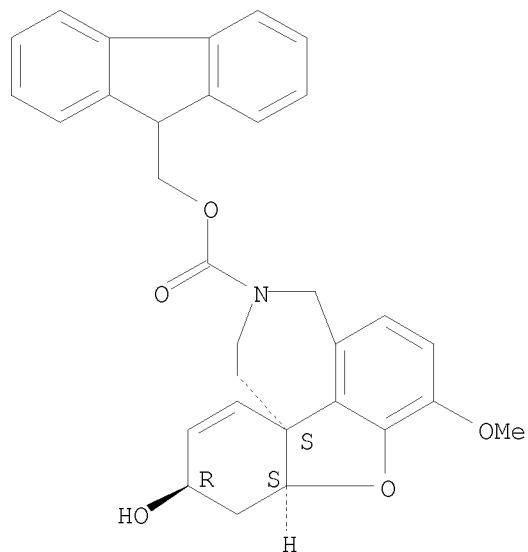
10/573,517



RN 365570-67-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 9H-fluoren-9-ylmethyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

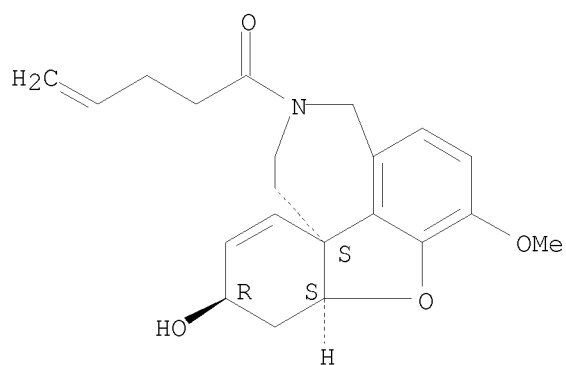


RN 365570-68-9 CAPLUS

CN 4-Penten-1-one, 1-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-  
10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

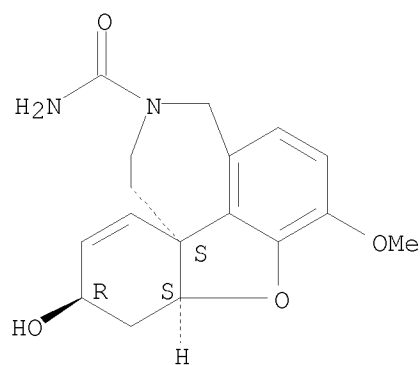
10/573,517



RN 365570-69-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

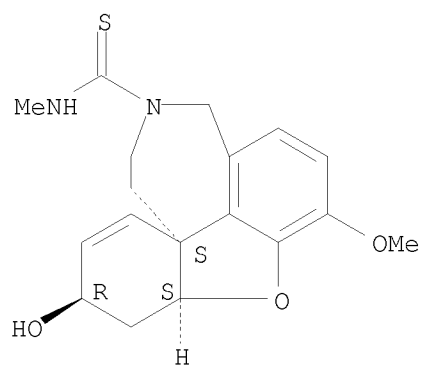


RN 365570-70-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-methyl-, (4aS,6R,8aS)- (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (-).

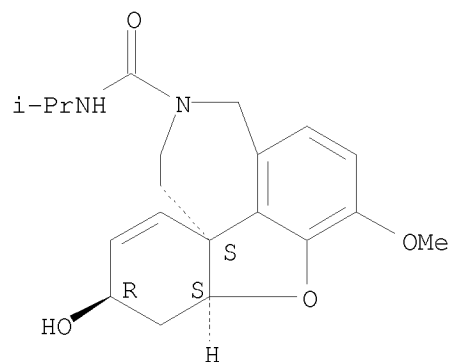
10/573,517



RN 365570-71-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-,  
(8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

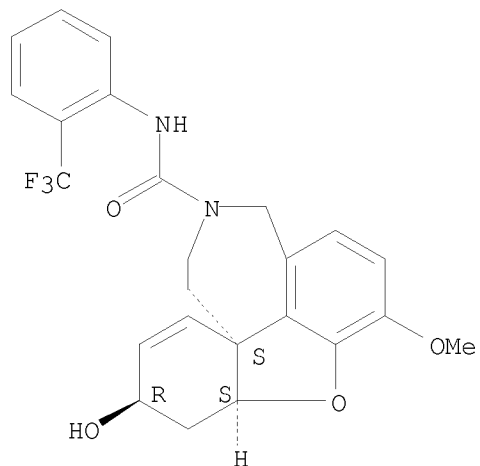


RN 365570-72-5 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-[2-(trifluoromethyl)phenyl]-,  
(8aS,10R,12aS)- (CA INDEX NAME)

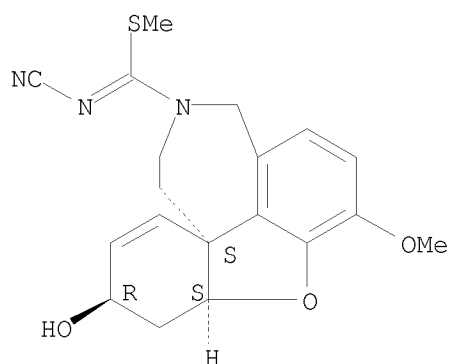
Absolute stereochemistry. Rotation (-).

10/573,517



RN 365570-73-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboximidothioic acid,  
N-cyano-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, methyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

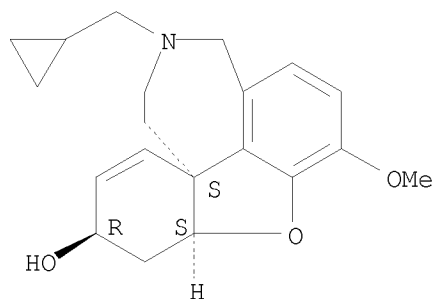
Absolute stereochemistry.  
Double bond geometry unknown.



RN 365570-74-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(cyclopropylmethyl)-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

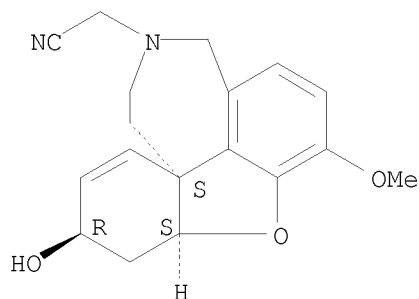
10/573,517



RN 365570-75-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetonitrile,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

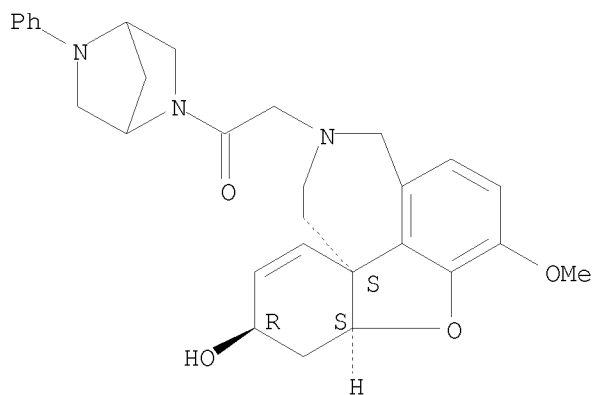
Absolute stereochemistry. Rotation (-).



RN 365570-76-9 CAPLUS

CN Ethanone, 1-(5-phenyl-2,5-diazabicyclo[2.2.1]hept-2-yl)-2-[(4aS,6R,8aS)-  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-  
ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

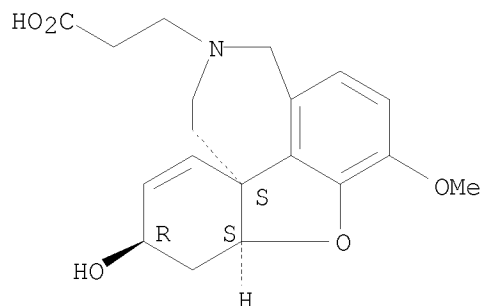


RN 365570-79-2 CAPLUS

10/573,517

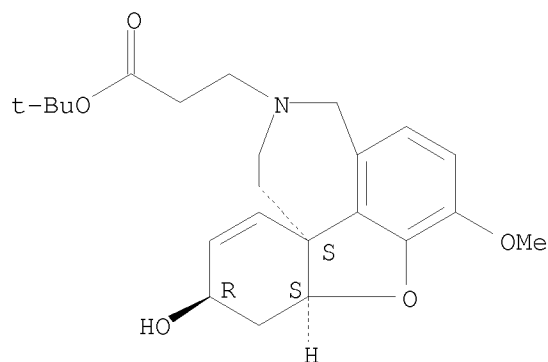
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-propanoic acid,  
3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 365570-80-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 1,1-dimethylethyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

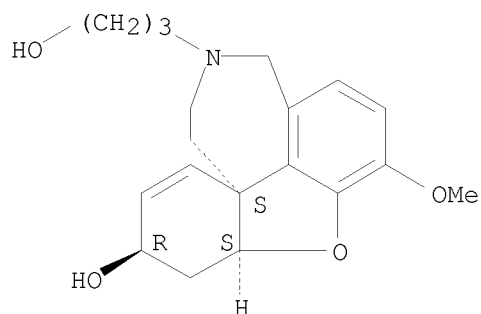


RN 365570-81-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanol,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



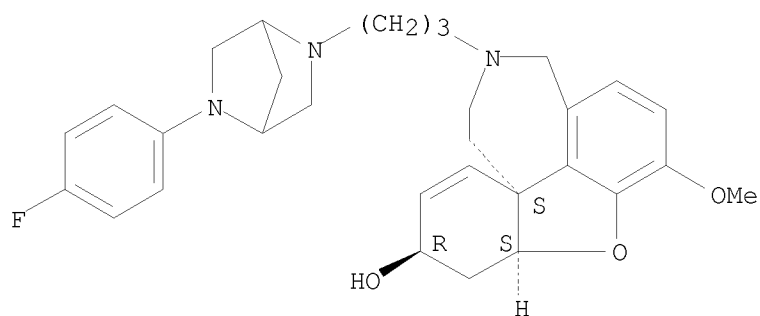
10/573,517



RN 365570-83-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[3-[5-(4-fluorophenyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]propyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

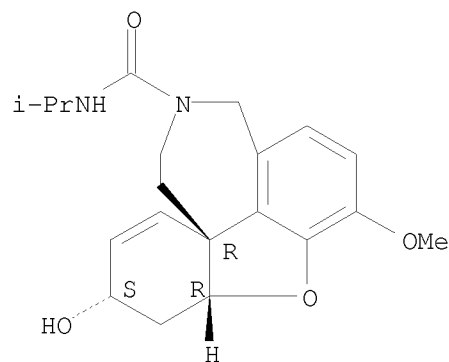
Absolute stereochemistry.



RN 365570-85-0 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide, 1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-, (8aR,10S,12aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

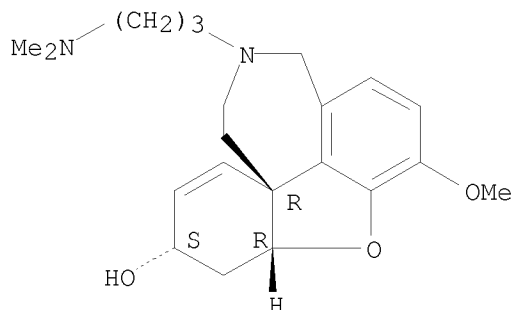


RN 365570-87-2 CAPLUS

10/573,517

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3-(dimethylamino)propyl]-  
1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)- (CA INDEX NAME)

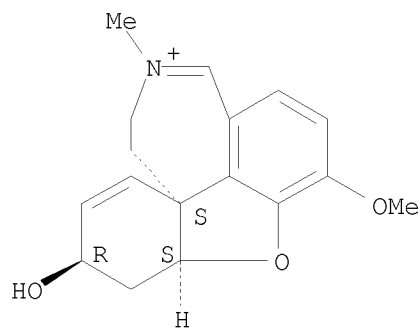
Absolute stereochemistry. Rotation (+).



RN 365571-13-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

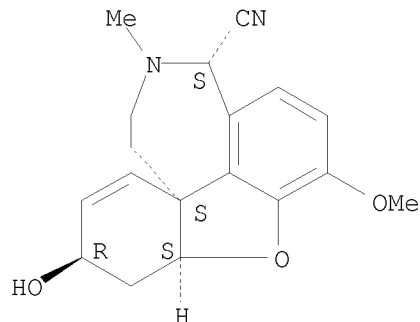


RN 365571-16-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-12-carbonitrile,  
4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-,  
(4aS,6R,8aS,12S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

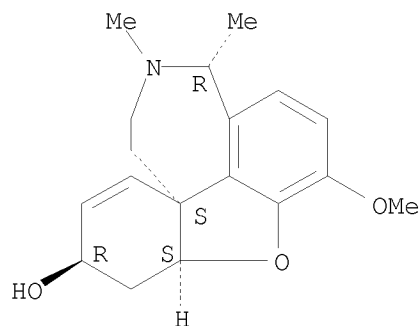
10/573,517



RN 365571-20-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11,12-dimethyl-, (4aS,6R,8aS,12R)- (CA INDEX NAME)

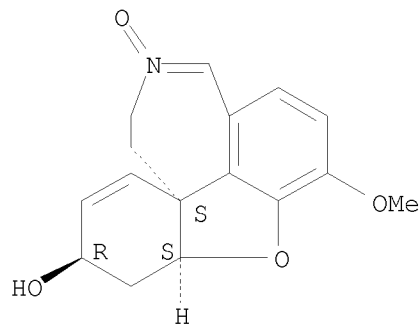
Absolute stereochemistry. Rotation (-).



RN 365571-25-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10-tetrahydro-3-methoxy-, 11-oxide-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

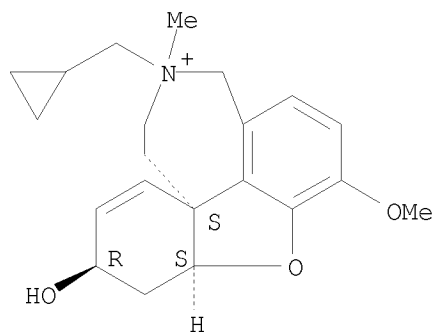


RN 365571-36-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-(cyclopropylmethyl)-, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

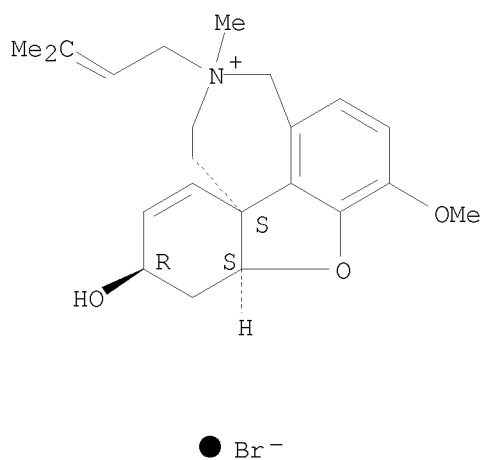
10/573,517

Absolute stereochemistry.



RN 365571-37-5 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-3-(3-methyl-2-buten-1-yl)-, bromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

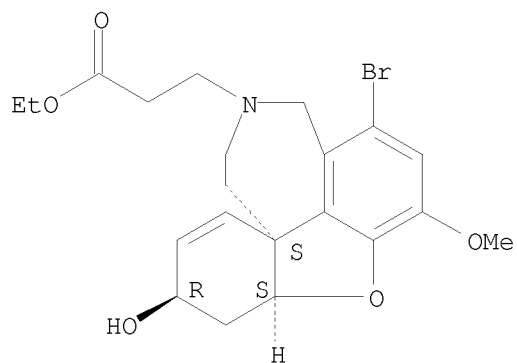
Absolute stereochemistry.



RN 365571-38-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid, 1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, ethyl ester, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

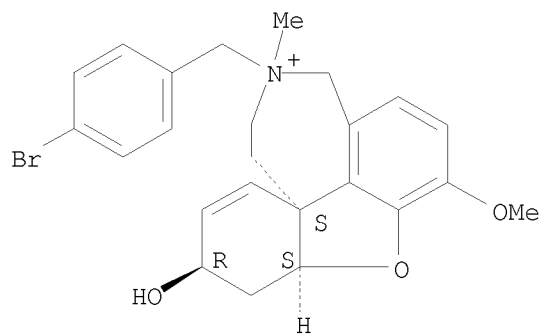
10/573,517



RN 365571-39-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-11-[(4-bromophenyl)methyl]-  
4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1),  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



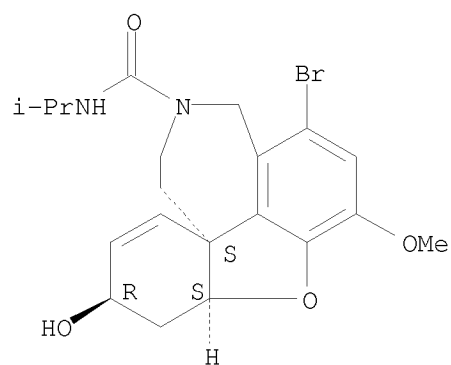
● Br<sup>-</sup>

RN 365571-41-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-(1-methylethyl)-,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

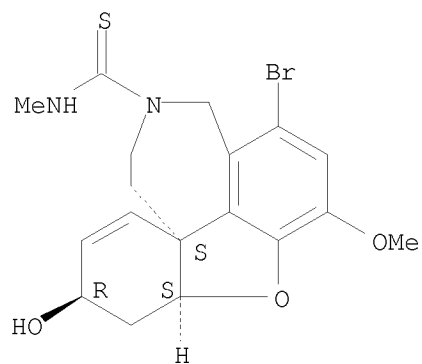
10/573,517



RN 365571-42-2 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carbothioamide,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-N-methyl-,  
(4aR,7S,8aR)-rel- (CA INDEX NAME)

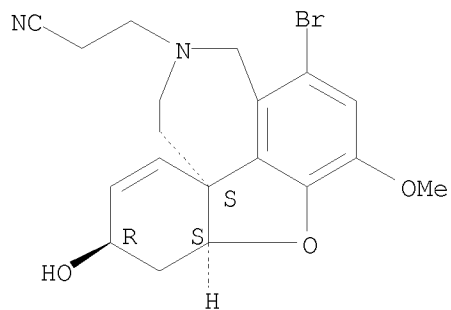
Relative stereochemistry.



RN 365571-43-3 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-propanenitrile,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aR,7S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.

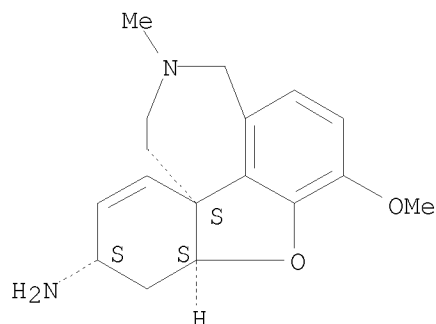


10/573,517

RN 365571-44-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-amine, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6S,8aS)- (CA INDEX NAME)

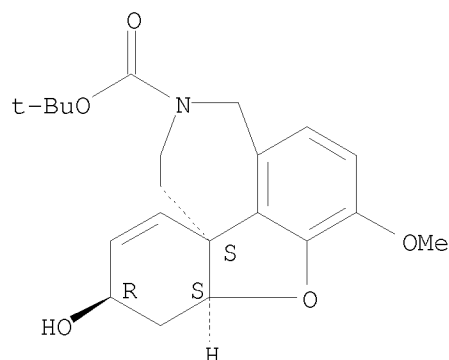
Absolute stereochemistry. Rotation (-).



RN 365571-46-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 1,1-dimethylethyl ester, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

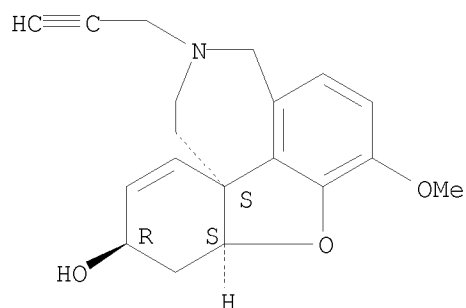


RN 365571-47-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propyn-1-yl)-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

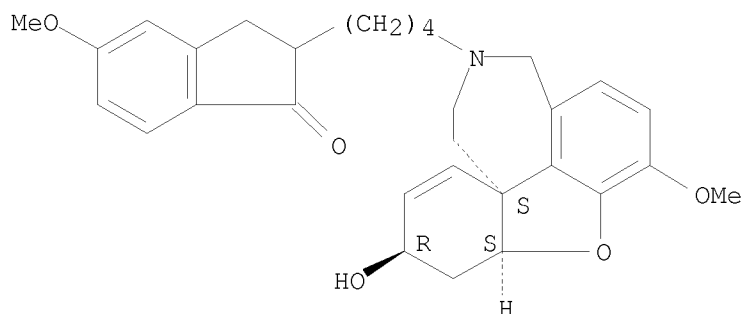
10/573,517



RN 365571-49-9 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-5-methoxy-2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 365571-50-2 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-5-methoxy-2-[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]butyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

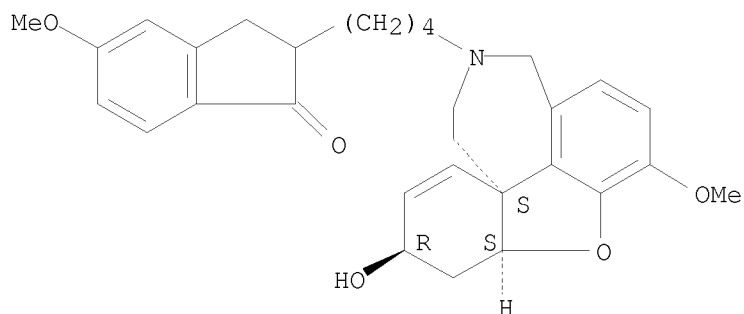
CRN 365571-49-9

CMF C30 H35 N O5

Absolute stereochemistry.



10/573,517

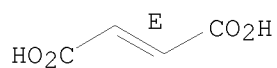


CM 2

CRN 110-17-8

CMF C4 H4 O4

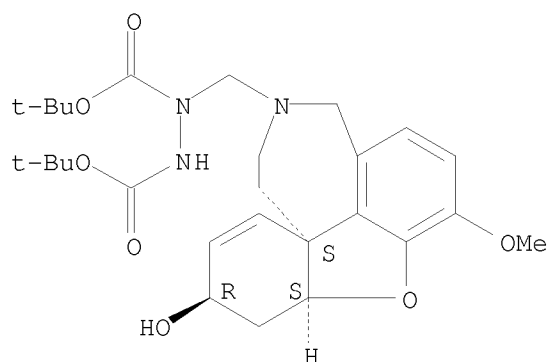
Double bond geometry as shown.



RN 365571-69-3 CAPLUS

CN 1,2-Hydrazinedicarboxylic acid, 1-[[ (8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]methyl]-, 1,2-bis(1,1-dimethylethyl) ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

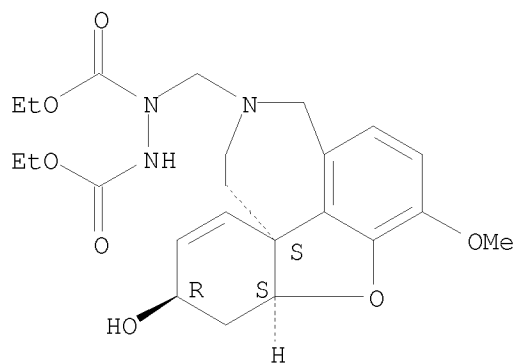


RN 365571-70-6 CAPLUS

CN 1,2-Hydrazinedicarboxylic acid, 1-[[ (4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]methyl]-, 1,2-diethyl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

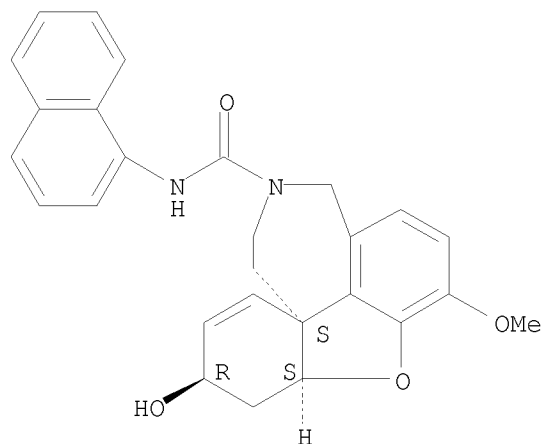
10/573,517



RN 365571-76-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-1-naphthalenyl-, (4aS,6R,8aS)-  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

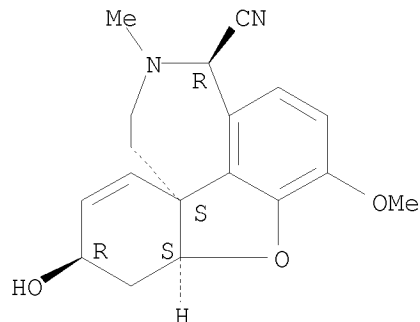


RN 365571-86-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-12-carbonitrile,  
4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-,  
(4aS,6R,8aS,12R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

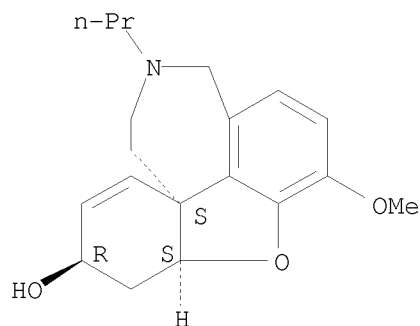
10/573,517



RN 366485-20-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-propyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

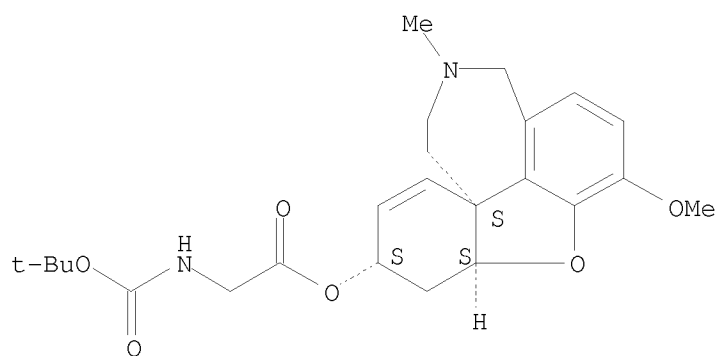


RN 849232-34-4 CAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, (4aS,6S,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, hydrochloride (1:1) (CA INDEX NAME)

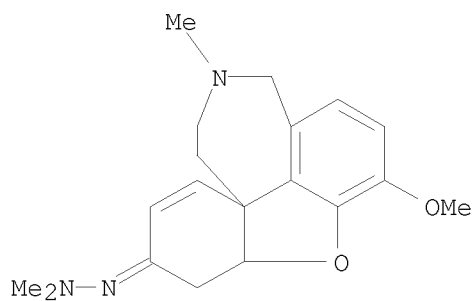
Absolute stereochemistry. Rotation (-).

10/573,517

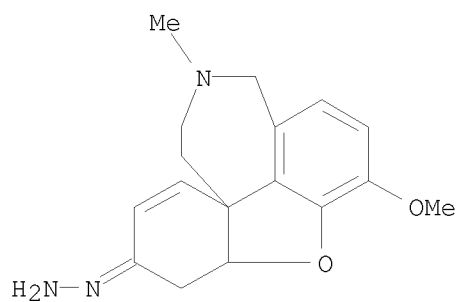


● HCl

RN 849232-39-9 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 2-methylhydrazone (CA INDEX NAME)



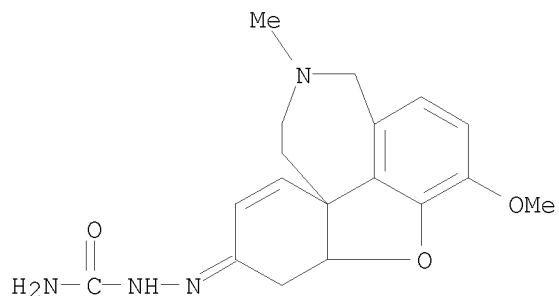
RN 849232-43-5 CAPLUS  
CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, hydrazone (CA INDEX NAME)



RN 849232-44-6 CAPLUS

10/573,517

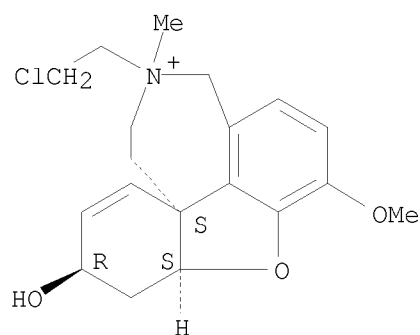
CN Hydrazinecarboxamide, 2-(1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-ylidene)- (CA INDEX NAME)



RN 849232-55-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-(2-chloroethyl)-4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



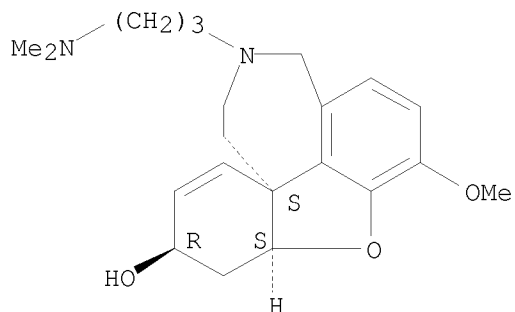
● Br<sup>-</sup>

RN 849232-64-0 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3-(dimethylamino)propyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

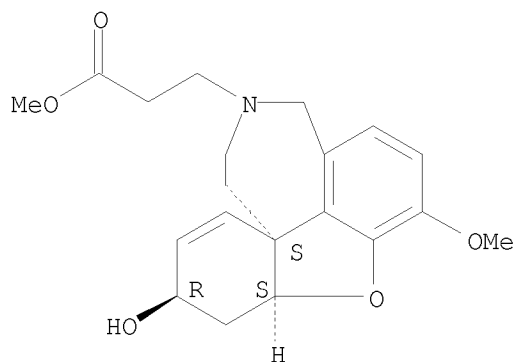
10/573,517



RN 849232-68-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, methyl ester, (4aR,6S,8aR)-rel-  
(9CI) (CA INDEX NAME)

Relative stereochemistry.



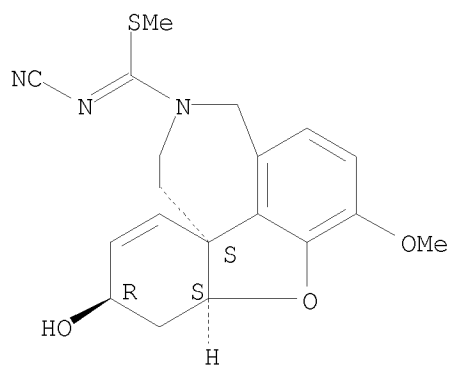
RN 849232-69-5 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboximidothioic acid,  
N-cyano-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, methyl ester,  
(8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.

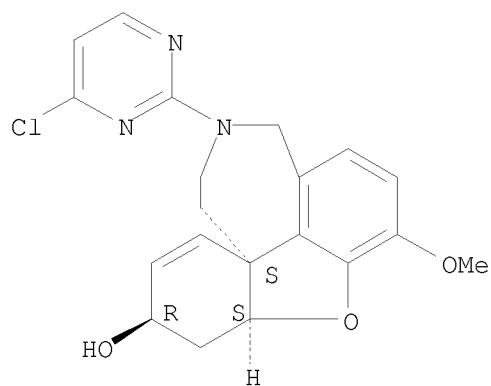
10/573,517



RN 849232-76-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(4-chloro-2-pyrimidinyl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

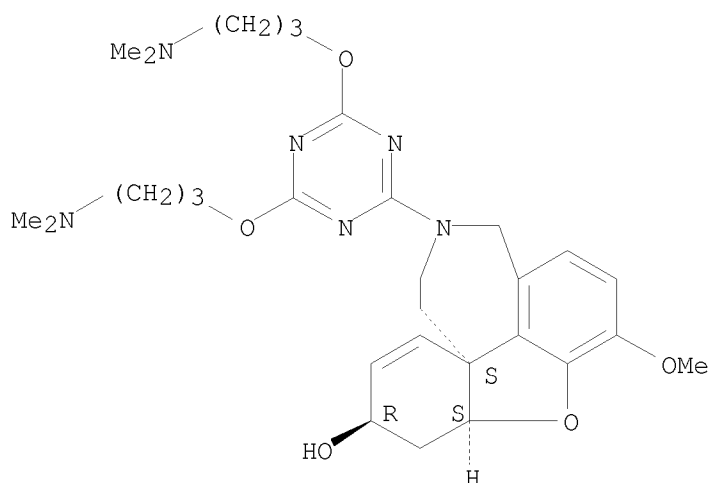


RN 849232-80-0 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[4,6-bis[3-(dimethylamino)propoxy]-1,3,5-triazin-2-yl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

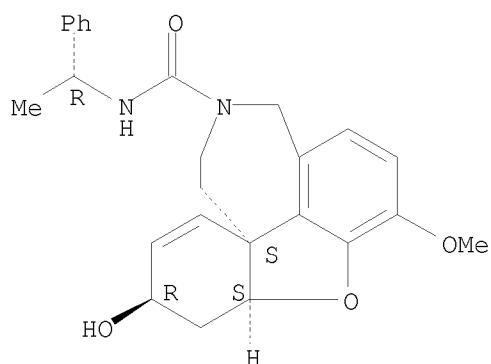
Relative stereochemistry.

10/573,517



RN 849232-91-3 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carboxamide,  
3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-N-[(1R)-1-phenylethyl]-, (7R)-  
(CA INDEX NAME)

Absolute stereochemistry.



RN 849232-96-8 CAPLUS  
CN 1,2-Benzisothiazol-3(2H)-one, 2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]-, 1,1-dioxide, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

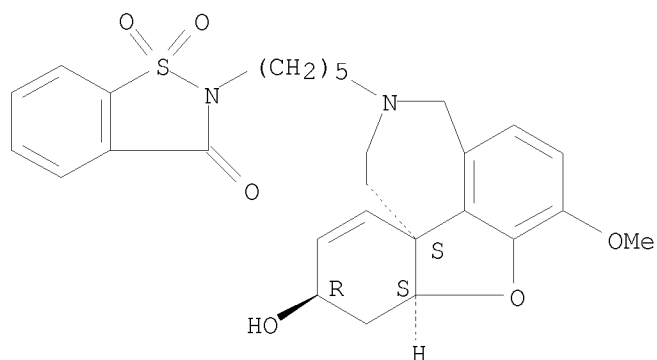
CM 1

CRN 365570-20-3  
CMF C28 H32 N2 O6 S

Absolute stereochemistry. Rotation (-).



10/573,517

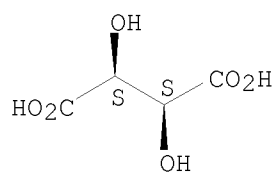


CM 2

CRN 147-71-7

CMF C4 H6 O6

Absolute stereochemistry.



RN 849232-97-9 CAPLUS

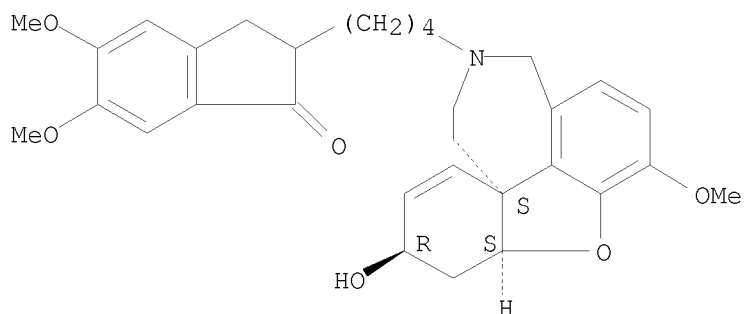
CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]butyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365570-24-7

CMF C31 H37 N O6

Absolute stereochemistry.



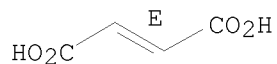
10/573,517

CM 2

CRN 110-17-8

CMF C4 H4 O4

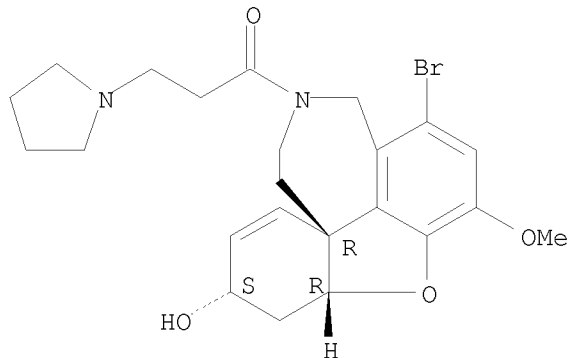
Double bond geometry as shown.



RN 849232-98-0 CAPLUS

CN 1-Propanone, 1-[(4aR,7S,8aR)-12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]-3-(1-pyrrolidinyl)-  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

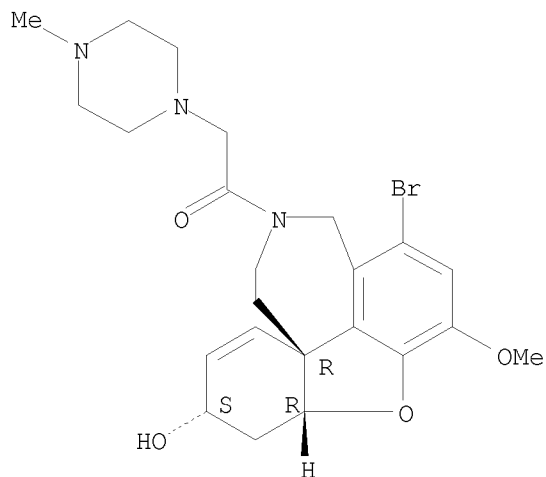


RN 849232-99-1 CAPLUS

CN Ethanone, 1-[(4aR,7S,8aR)-12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]-2-(4-methyl-1-piperazinyl)-  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

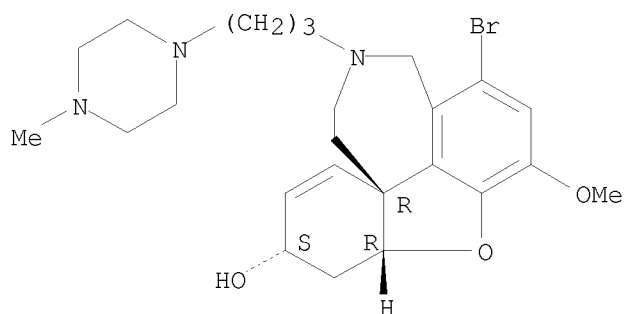
10/573,517



RN 849233-00-7 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 12-bromo-1,2,3,4,8,8a-hexahydro-10-methoxy-2-[3-(4-methyl-1-piperazinyl)propyl]-, hydrochloride (1:3), (4aR,7S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



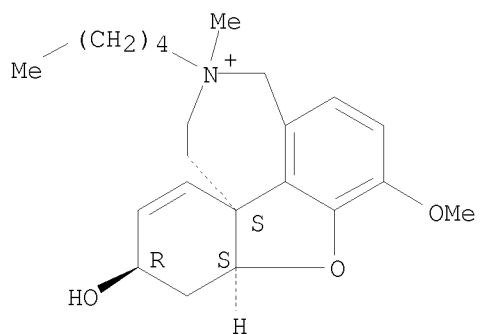
●3 HCl

RN 849355-36-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-3-pentyl-, bromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

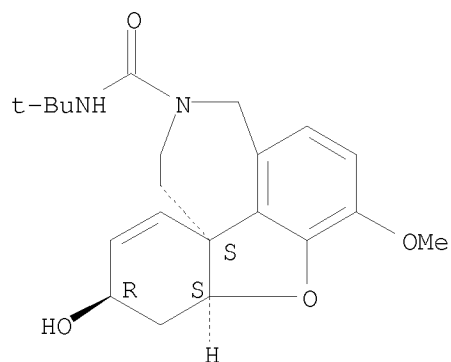
Absolute stereochemistry.

10/573,517



RN 849355-37-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-(1,1-dimethylethyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aS,6R,8aS)- (CA INDEX NAME)

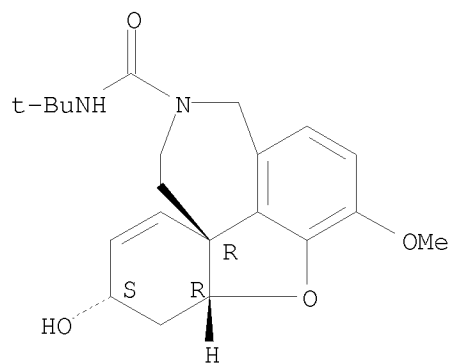
Absolute stereochemistry.



RN 849355-38-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-(1,1-dimethylethyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

10/573,517



RN 849355-39-1 CAPLUS

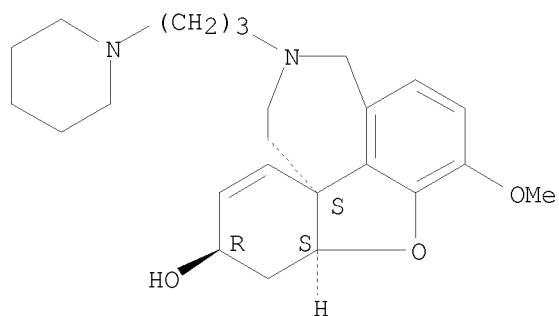
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, (4aS,6R,8aS)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 331824-90-9

CMF C24 H34 N2 O3

Absolute stereochemistry. Rotation (-).

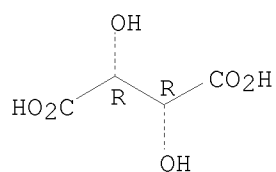


CM 2

CRN 87-69-4

CMF C4 H6 O6

Absolute stereochemistry.

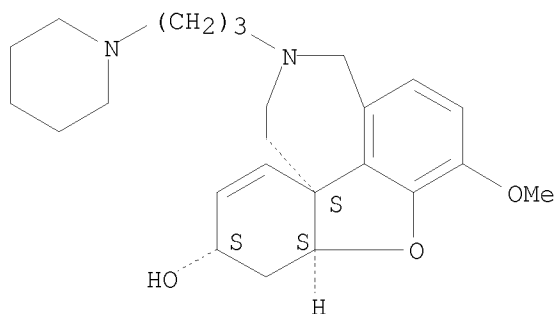


10/573,517

RN 849355-40-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, (4aS,6S,8aS)- (CA INDEX NAME)

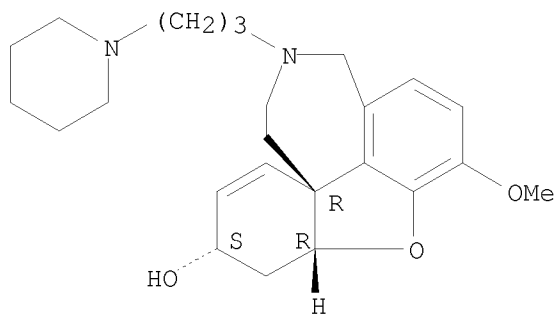
Absolute stereochemistry. Rotation (-).



RN 849355-41-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

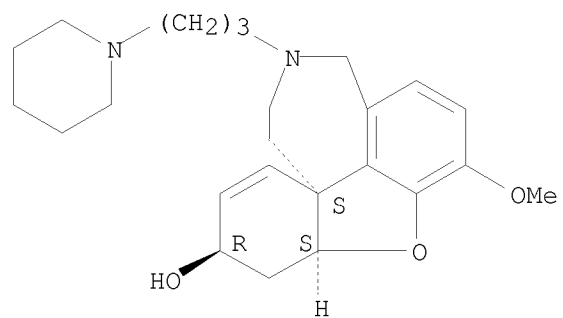


RN 849355-42-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, hydrobromide (1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



● 2 HBr

L61 ANSWER 19 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:259678 CAPLUS

DOCUMENT NUMBER: 142:341889

TITLE: Pharmaceuticals containing combinations of an acetylcholine esterase inhibitor and  $\alpha$ -2- $\delta$  receptor ligands

INVENTOR(S): Field, Mark John; Williams, Richard Griffith

PATENT ASSIGNEE(S): UK

SOURCE: U.S. Pat. Appl. Publ., 25 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050065176	A1	20050324	US 2004-936416	20040908
CA 2539377	A1	20050331	CA 2004-2539377	20040908
WO 2005027975	A1	20050331	WO 2004-IB2981	20040908
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1667722	A1	20060614	EP 2004-769370	20040908
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004014590	A	20061107	BR 2004-14590	20040908
JP 2007505889	T	20070315	JP 2006-526722	20040908
MX 2006PA03157	A	20060605	MX 2006-PA3157	20060320
PRIORITY APPLN. INFO.:			GB 2003-22140	A 20030922
			WO 2004-IB2981	W 20040908

AB The instant invention relates to a combination of  $\alpha$ -2- $\delta$  ligand and an AChE inhibitor for use in therapy, particularly in the treatment of pain, particularly neuropathic pain. Particularly preferred  $\alpha$ -2- $\delta$  ligands are gabapentin and pregabalin. Particularly preferred AChE inhibitors are donepezil (Aricept), tacrine (Cognex), rivastigmine (Exelon), physostigmine (Synapton), galantamine (Reminyl), metrifonate (Promem), neostigmine (Prostigmin) and icopezil. Thus pessary compns. contained the above ingredient 250, anhydrous dextrose 380, potato starch 363, and Mg stearate 7 mg. The preparation of some of the compds. is given.

IT 357-70-0D, Galantamine, derivs.

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(SPH 1371, 1373 and 1375; pharmaceuticals containing combinations of acetylcholine esterase inhibitor and  $\alpha$ -2- $\delta$  receptor ligands)

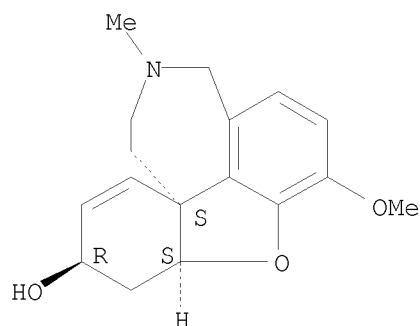
RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)



10/573,517

Absolute stereochemistry. Rotation (-).



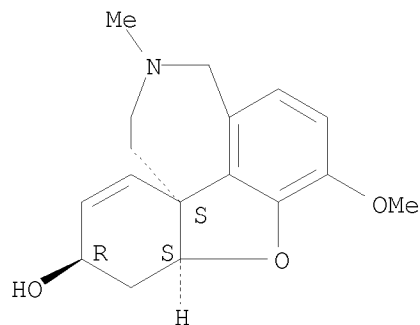
IT 357-70-0, Galantamine 1953-04-4, Reminyl  
273930-29-3, SPH 1286

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pharmaceuticals containing combinations of acetylcholine esterase  
inhibitor and  $\alpha$ -2- $\delta$  receptor ligands)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

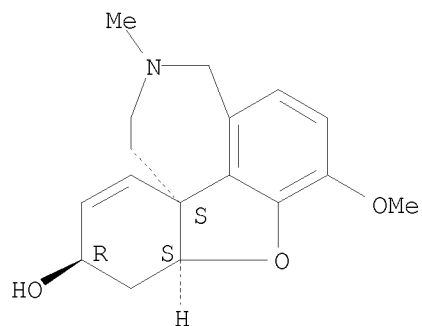


RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-  
methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



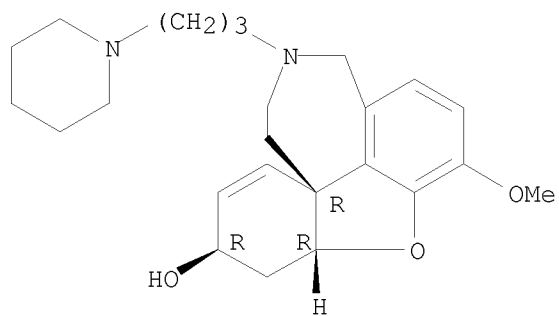
● HBr

RN 273930-29-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, (4aR,6R,8aR)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 273930-28-2  
CMF C24 H34 N2 O3

Absolute stereochemistry.

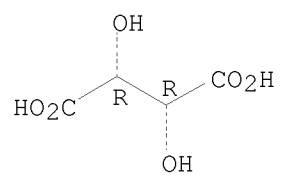


CM 2

CRN 87-69-4  
CMF C4 H6 O6

Absolute stereochemistry.

10/573,517



L61 ANSWER 20 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1080689 CAPLUS

DOCUMENT NUMBER: 142:43918

TITLE: Carboxylate salts of galantamine and their pharmaceutical use

INVENTOR(S): Quay, Steven C.; Costantino, Henry R.; Houston, Michael E.; Leonard, Alexis Kays

PATENT ASSIGNEE(S): Natestch Pharmaceutical Company Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 10 pp., Cont.-in-part of U.S. Ser. No. 439,108.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

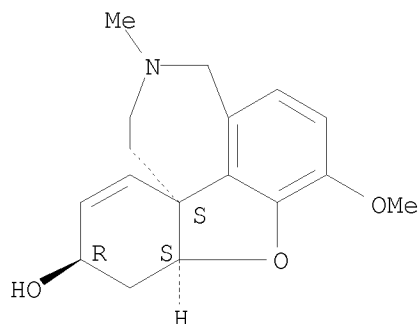
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040254146	A1	20041216	US 2004-831031	20040423
US 20030225031	A1	20031204	US 2003-439108	20030515
CA 2482161	A1	20040108	CA 2003-2482161	20030519
AU 2003269874	A1	20040119	AU 2003-269874	20030519
EP 1505971	A2	20050216	EP 2003-751761	20030519
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005532372	T	20051027	JP 2004-517563	20030519
NZ 535192	A	20060526	NZ 2003-535192	20030519
IN 2004KN01664	A	20071012	IN 2004-KN1664	20041108
CA 2564353	A1	20051103	CA 2005-2564353	20050422
WO 2005102275	A2	20051103	WO 2005-US13776	20050422
WO 2005102275	A3	20060330		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 20060003989	A1	20060105	US 2005-112950	20050422
EP 1753397	A2	20070221	EP 2005-758604	20050422
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2007534686	T	20071129	JP 2007-509671	20050422
MX 2006PA12269	A	20070425	MX 2006-PA12269	20061023
PRIORITY APPLN. INFO.:				
			US 2002-382122P	P 20020521
			US 2003-439108	A2 20030515
			WO 2003-US15653	W 20030519
			US 2004-831031	A 20040423
			WO 2005-US13776	W 20050422

AB Disclosed are novel carboxylate salts of galantamine including galantamine gluconate, galantamine lactate, galantamine citrate and galantamine glucarate. These salts of galantamine have more than a 5 fold increase in

solubility compared to galantamine hydrobromide. These galantamine salts can be administered to an individual to inhibit acetylcholinesterase in the treatment of such diseases as Alzheimer's disease, atony of the smooth muscle of the intestinal tract and urinary bladder, glaucoma, myasthenia gravis, and termination of the effects of competitive neuromuscular blocking drugs. For example, galantamine gluconate was produced from galantamine bromide by an anion exchange process using QAE Sephadex. The process resulted in a 98.23% recovery of galantamine gluconate. The solubility of the galantamine gluconate was at least 238 mg/mL, which was at least approx. a 5.75 fold increase in solubility over the solubility of galantamine hydrobromide.

IT 357-70-0DP, Galantamine, carboxylate salts 187963-74-2P  
 807362-22-7P 807362-27-2P 807362-32-9P  
 807362-37-4P 807362-41-0P 807362-45-4P  
 807362-51-2P 807362-55-6P 807362-63-6P  
 807362-69-2P 807362-73-8P 807362-80-7P  
 RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (galantamine carboxylate salts preparation by anion exchange for increased solubility)  
 RN 357-70-0 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

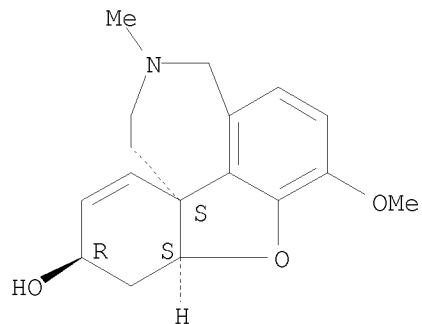
Absolute stereochemistry. Rotation (-).



RN 187963-74-2 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, methanesulfonate (1:1) (CA INDEX NAME)  
 CM 1  
 CRN 357-70-0  
 CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).

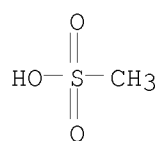
10/573,517



CM 2

CRN 75-75-2

CMF C H4 O3 S



RN 807362-22-7 CAPLUS

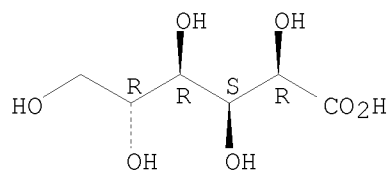
CN D-Gluconic acid, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (9CI)  
(CA INDEX NAME)

CM 1

CRN 526-95-4

CMF C6 H12 O7

Absolute stereochemistry.



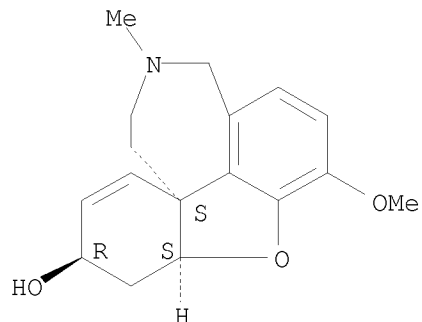
CM 2

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).

10/573,517



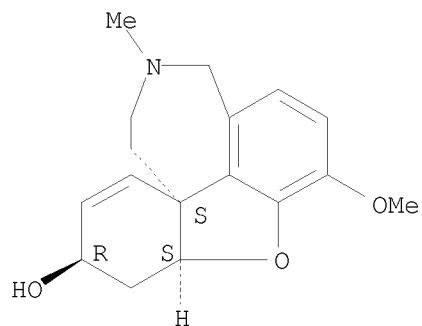
RN 807362-27-2 CAPLUS  
CN Propanoic acid, 2-hydroxy-, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

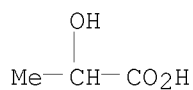
Absolute stereochemistry. Rotation (-).



CM 2

CRN 50-21-5

CMF C3 H6 O3



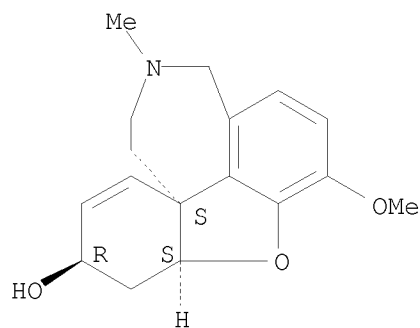
RN 807362-32-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, 2-hydroxy-1,2,3-propanetricarboxylate (1:1) (CA INDEX NAME)

CM 1

10/573,517

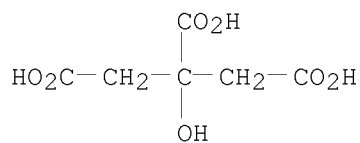
CRN 357-70-0  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



CM 2

CRN 77-92-9  
CMF C6 H8 O7

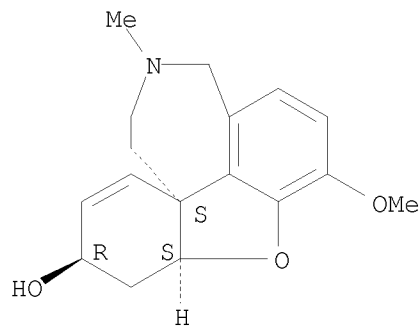


RN 807362-37-4 CAPLUS  
CN D-Glucaric acid, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (9CI)  
(CA INDEX NAME)

CM 1

CRN 357-70-0  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).





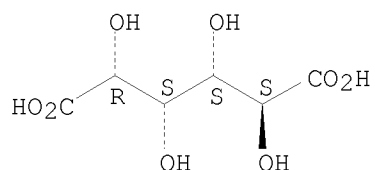
10/573,517

CM 2

CRN 87-73-0

CMF C6 H10 O8

Absolute stereochemistry.



RN 807362-41-0 CAPLUS

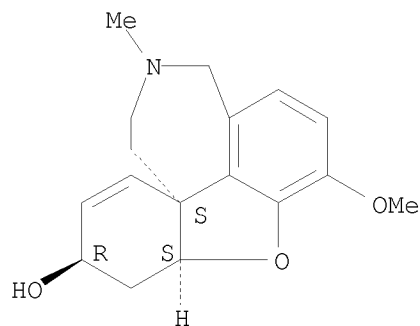
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, benzoate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

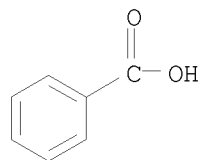
Absolute stereochemistry. Rotation (-).



CM 2

CRN 65-85-0

CMF C7 H6 O2



RN 807362-45-4 CAPLUS

10/573,517

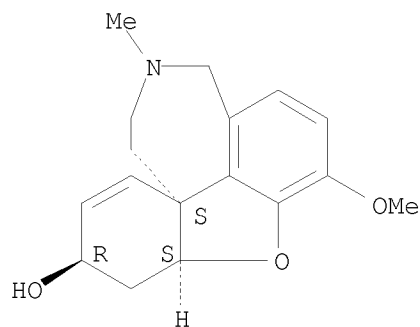
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, acetate (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

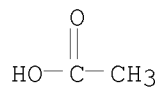
Absolute stereochemistry. Rotation (-).



CM 2

CRN 64-19-7

CMF C2 H4 O2



RN 807362-51-2 CAPLUS

CN Benzoic acid, 2-hydroxy-, (4aS,6R,8aS)-compd. with 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

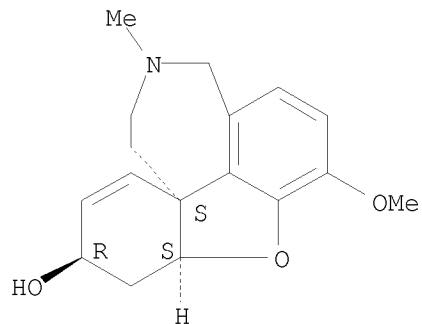
CM 1

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).

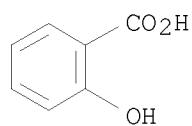
10/573,517



CM 2

CRN 69-72-7

CMF C7 H6 O3



RN 807362-55-6 CAPLUS

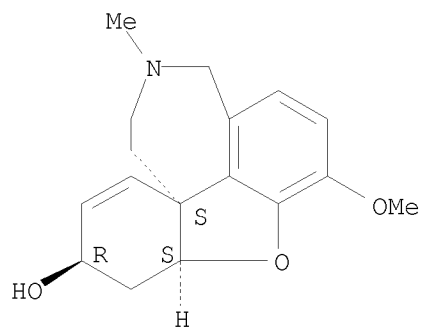
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



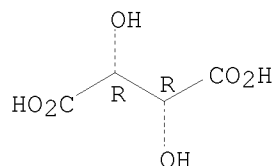
CM 2

CRN 87-69-4

CMF C4 H6 O6

10/573,517

Absolute stereochemistry.



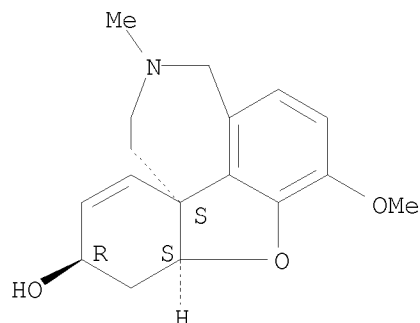
RN 807362-63-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

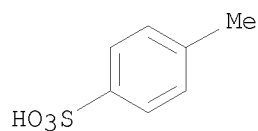
Absolute stereochemistry. Rotation (-).



CM 2

CRN 104-15-4

CMF C7 H8 O3 S



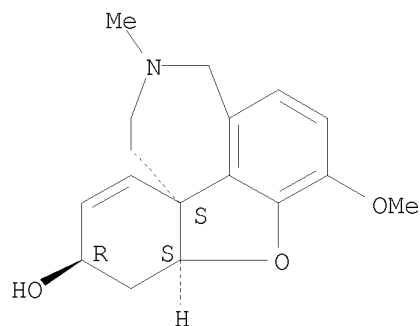
RN 807362-69-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, (2Z)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

10/573,517

CRN 357-70-0  
CMF C17 H21 N O3

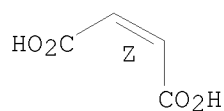
Absolute stereochemistry. Rotation (-).



CM 2

CRN 110-16-7  
CMF C4 H4 O4

Double bond geometry as shown.

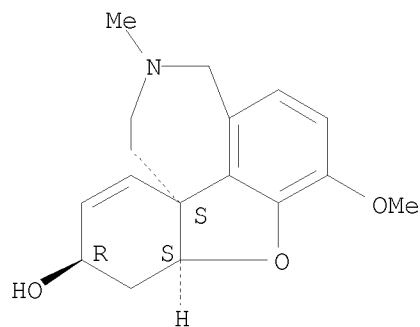


RN 807362-73-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, (2E)-2-butenedioate (1:1) (salt) (9CI)  
(CA INDEX NAME)

CM 1

CRN 357-70-0  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



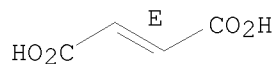
10/573,517

CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 807362-80-7 CAPLUS

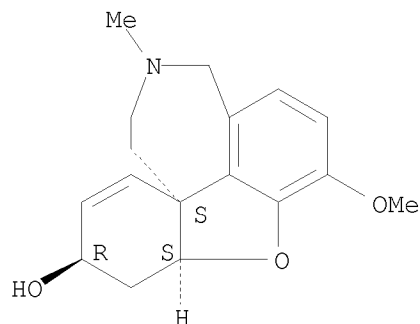
CN Octadecanoic acid, (4aS,6R,8aS)-compd. with 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



CM 2

CRN 57-11-4

CMF C18 H36 O2

HO<sub>2</sub>C- (CH<sub>2</sub>)<sub>16</sub>-Me

IT 1953-04-4, Galantamine hydrobromide

RL: RCT (Reactant); RACT (Reactant or reagent)

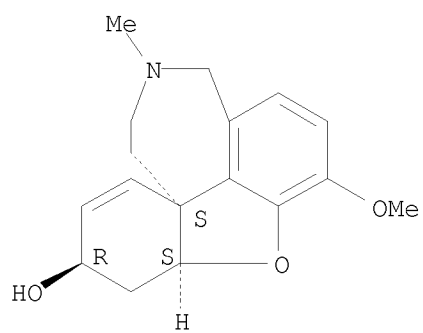
(galantamine carboxylate salts preparation by anion exchange for increased solubility)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



● HBr

L61 ANSWER 21 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1059296 CAPLUS

DOCUMENT NUMBER: 142:43784

TITLE: Compounds useful in the therapy of Alzheimer's disease and formulations containing them

INVENTOR(S): Bombardelli, Ezio; Fontana, Gabriele; Verotta, Luisella

PATENT ASSIGNEE(S): Indena S.p.A., Italy

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004106275	A2	20041209	WO 2004-EP5644	20040526
WO 2004106275	A3	20050317		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004242838	A1	20041209	AU 2004-242838	20040526
CA 2527354	A1	20041209	CA 2004-2527354	20040526
EP 1638914	A2	20060329	EP 2004-739354	20040526
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
BR 2004010703	A	20060613	BR 2004-10703	20040526
CN 1795158	A	20060628	CN 2004-80014634	20040526
JP 2007505152	T	20070308	JP 2006-529917	20040526
IN 2005DN05446	A	20071221	IN 2005-DN5446	20051125
MX 2005PA12826	A	20060213	MX 2005-PA12826	20051128
US 20070010507	A1	20070111	US 2005-558403	20051128
NO 2005006042	A	20051219	NO 2005-6042	20051219
PRIORITY APPLN. INFO.:			IT 2003-MI1098	A 20030530
			IT 2003-MI109	A 20030530
			WO 2004-EP5644	W 20040526

OTHER SOURCE(S): MARPAT 142:43784

AB Floroglucino salts with acetylcholinesterase-inhibiting alkaloids and methods for the preparation thereof are disclosed. Said salts are useful for the treatment of depression and Alzheimer's disease and can be administered as conventional pharmaceutical formulations or as controlled-release transdermal preps.

IT 357-70-0, Galantamine 803723-34-4 803723-42-4

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compds. useful in the therapy of Alzheimer's disease and formulations containing them)

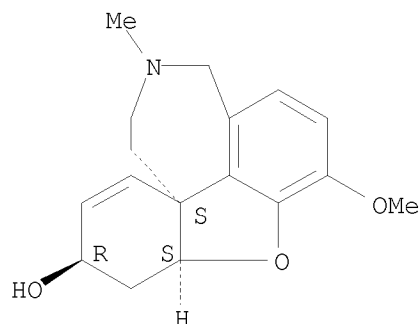
RN 357-70-0 CAPLUS



10/573,517

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 803723-34-4 CAPLUS

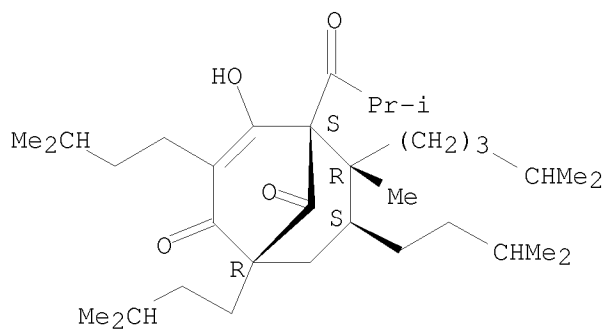
CN Bicyclo[3.3.1]non-3-ene-2,9-dione, 4-hydroxy-6-methyl-1,3,7-tris(3-methylbutyl)-5-(2-methyl-1-oxopropyl)-6-(4-methylpentyl)-, (1R,5S,6R,7S)-(4aS,6R,8aS)-compd. with 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

CM 1

CRN 11079-55-3

CMF C35 H60 O4

Absolute stereochemistry.



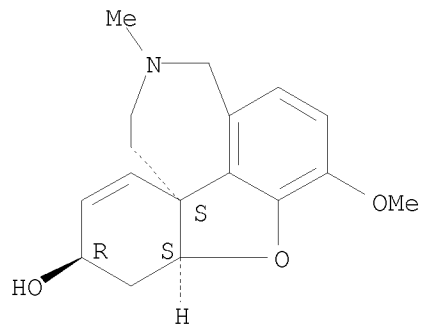
CM 2

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).

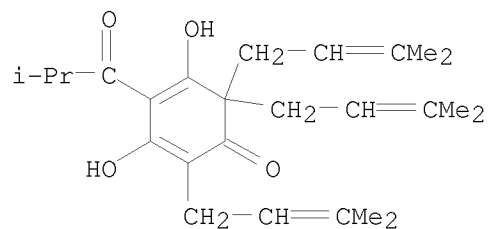
10/573,517



RN 803723-42-4 CAPLUS  
CN 2,4-Cyclohexadien-1-one, 3,5-dihydroxy-2,6,6-tris(3-methyl-2-buten-1-yl)-4-(2-methyl-1-oxopropyl)-, (4aS,6R,8aS)-compd. with 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

CM 1

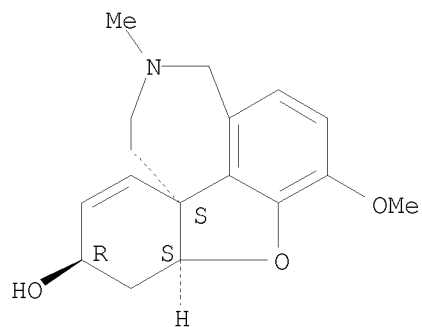
CRN 468-27-9  
CMF C25 H36 O4



CM 2

CRN 357-70-0  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



L61 ANSWER 22 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:930105 CAPLUS

DOCUMENT NUMBER: 142:248

TITLE: The Complex of a Bivalent Derivative of Galanthamine with Torpedo Acetylcholinesterase Displays Drastic Deformation of the Active-Site Gorge: Implications for Structure-Based Drug Design

AUTHOR(S): Greenblatt, Harry M.; Guillou, Catherine; Guenard, Daniel; Argaman, Anat; Botti, Simone; Badet, Bernard; Thal, Claude; Silman, Israel; Sussman, Joel L.

CORPORATE SOURCE: Departments of Structural Biology and Neurobiology, Weizmann Institute of Science, Rehovot, 76100, Israel

SOURCE: Journal of the American Chemical Society (2004), 126(47), 15405-15411

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Bifunctional derivs. of the alkaloid galanthamine, designed to interact with both the active site of the enzyme acetylcholinesterase (AChE) and its peripheral cation binding site, have been assayed with Torpedo californica AChE (TcAChE), and the three-dimensional structures of their complexes with the enzyme have been solved by x-ray crystallog. Differences were noted between the IC<sub>50</sub> values obtained for TcAChE and those for Electrophorus electricus AChE. These differences are ascribed to sequence differences in one or two residues lining the active-site gorge of the enzyme. The binding of one of the inhibitors disrupts the native conformation of one wall of the gorge, formed by the loop Trp279-Phe290. It is proposed that flexibility of this loop may permit the binding of inhibitors such as galanthamine, which are too bulky to penetrate the narrow neck of the gorge formed by Tyr121 and Phe330 as seen in the crystal structure.

IT 357-70-0DP, Galanthamine, bivalent drivatives

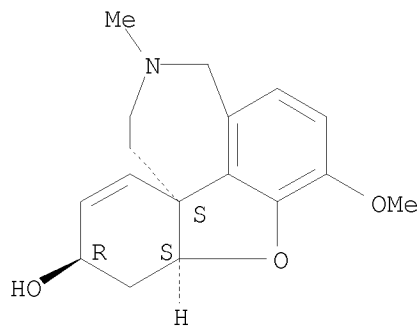
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(complex of a bivalent derivative of galanthamine with Torpedo acetylcholinesterase displays drastic deformation of active-site gorge and implications for structure-based drug design)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 210474-61-6P 331816-48-9P

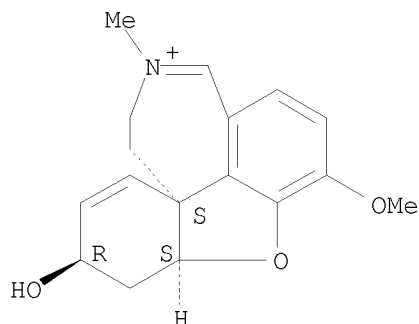
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(complex of a bivalent derivative of galanthamine with Torpedo acetylcholinesterase displays drastic deformation of active-site gorge and implications for structure-based drug design)

RN 210474-61-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

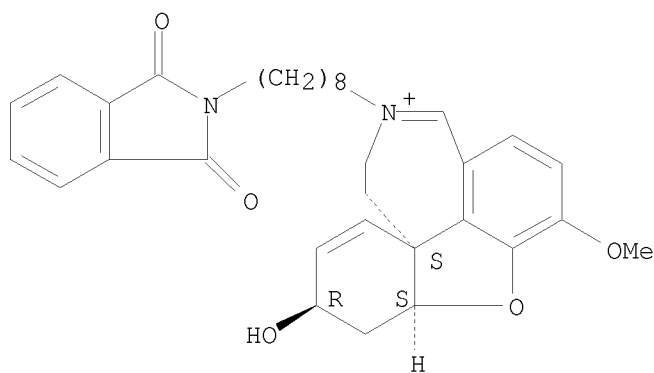
Absolute stereochemistry. Rotation (-).



RN 331816-48-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-[8-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)octyl]-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



IT 187796-02-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(complex of a bivalent derivative of galanthamine with Torpedo acetylcholinesterase displays drastic deformation of active-site gorge and implications for structure-based drug design)

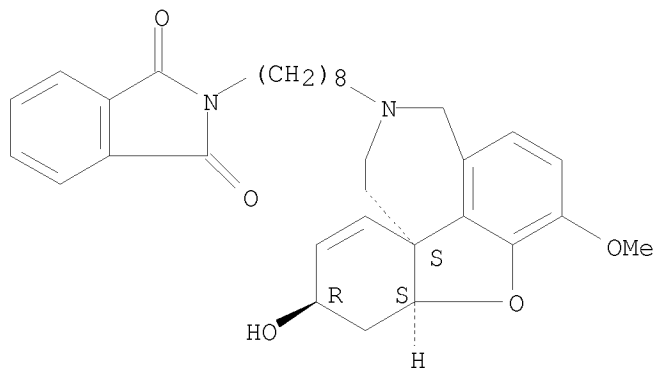
RN 187796-02-7 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[8-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-

10/573,517

hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]octyl]-  
(CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

63

THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 23 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:681570 CAPLUS

DOCUMENT NUMBER: 141:212752

TITLE: Pharmaceutical compositions containing inhibitors of cholinesterase in combination of anticholinergics for treatment of senile dementia

INVENTOR(S): Fu, Fenghua; Jiang, Wanglin; Zheng, Shengguo; Tian, Jingwei; Liu, Ke

PATENT ASSIGNEE(S): Shandong Luye Natural Drugs Research and Develop Company Ltd., Peop. Rep. China; School of Pharmacy, Yantai University

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

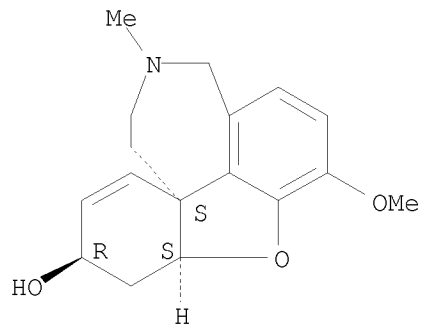
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004069246	A1	20040819	WO 2004-CN104	20040209
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1520818	A	20040818	CN 2003-102139	20030209
PRIORITY APPLN. INFO.:			CN 2003-102139	A 20030209
AB The present invention relates to drug compns. comprising inhibitors of cholinesterase for treating senile dementia, especially those containing anticholinergic drugs, wherein the anticholinergic drugs are M-receptor blocking agents which can not cross blood-cerebrospinal fluid barrier. The compns. can reduce gastrointestinal-tract side-effect without reducing efficacy of the treatment on senile dementia. For example, tablets for treatment of senile dementia contained huperzine 0.10, propantheline bromide 15.0, lactose 100.0, microcrystal cellulose 73.0, hydroxymethyl sodium starch 10.0, magnesium stearate 1.0 and proper amount of PVP.				
IT 357-70-0, Galantamine 741675-69-4 RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (pharmaceutical compns. containing inhibitors of cholinesterase in combination of anticholinergics for treatment of senile dementia)				
RN 357-70-0 CAPLUS				
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)				

Absolute stereochemistry. Rotation (-).

10/573,517

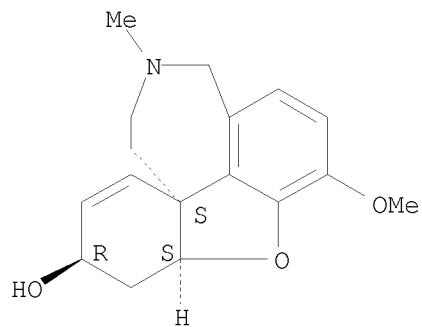


RN 741675-69-4 CAPLUS  
CN 2-Propanaminium, N-methyl-N-(1-methylethyl)-N-[2-[(9H-xanthen-9-ylcarbonyl)oxy]ethyl]-, bromide, mixt. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (9CI) (CA INDEX NAME)

CM 1

CRN 357-70-0  
CMF C17 H21 N O3

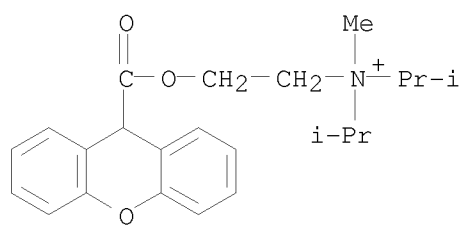
Absolute stereochemistry. Rotation (-).



CM 2

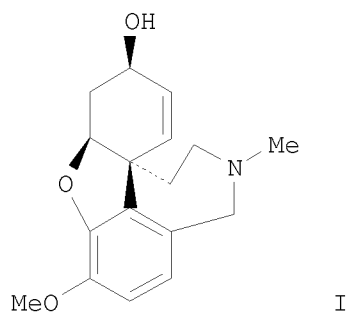
CRN 50-34-0  
CMF C23 H30 N O3 . Br

10/573,517





L61 ANSWER 24 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:444321 CAPLUS  
 DOCUMENT NUMBER: 141:123789  
 TITLE: Natural product synthesis: Total synthesis of  
 (-)-galanthamine by remote asymmetric induction  
 AUTHOR(S): Kodama, Sumiaki; Hamashima, Yoshio; Nishide, Kiyoharu;  
 Node, Manobu  
 CORPORATE SOURCE: Department of Pharmaceutical Manufacturing Chemistry,  
 Kyoto Pharmaceutical University, Misasagi, Yamashina,  
 Kyoto, 607-8414, Japan  
 SOURCE: Angewandte Chemie, International Edition (2004),  
 43(20), 2659-2661  
 CODEN: ACIEF5; ISSN: 1433-7851  
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 141:123789  
 GI



AB A pivotal intramol. Michael addition to form a fused 5,7,5 ring system and the skeleton of (-)-galanthamine (I) was completely controlled by a remote chiral imidazolidinone auxiliary derived from D-phenylalanine. This total synthesis of the allylic alc. I avoids the corresponding enone narwedine, a highly allergenic intermediate in previous syntheses of I.

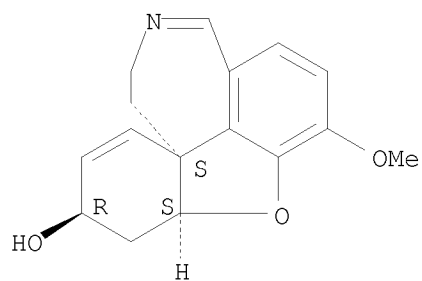
IT 271769-63-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (total synthesis of (-)-galanthamine by remote asym. induction)

RN 271769-63-2 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,8a,9-tetrahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517



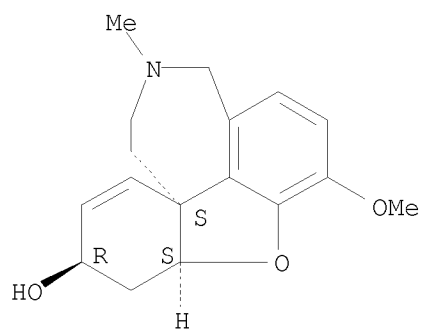
IT 357-70-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(total synthesis of (-)-galanthamine by remote asym. induction)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT:

32

THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 25 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:207786 CAPLUS

DOCUMENT NUMBER: 141:332341

TITLE: Molecular recognition between 4aS/R-galanthamine diastereoisomers and  $\alpha$ -cyclodextrin

AUTHOR(S): Sun, Ming.; Liu, Xiaohong; Yan, Liushui; Luo, Guoan; Zhao, Yufen

CORPORATE SOURCE: The Key Laboratory of Bioorganic Phosphorus Chemistry, Ministry of Education, Peop. Rep. China

SOURCE: Journal of Molecular Modeling (2003), 9(6), 419-422

CODEN: JMMOFK; ISSN: 0948-5023

URL: <http://www.springerlink.com/app/home/content.asp?wasp=988gxwqqyh03m6xhdr02&referrer=contribution&format=2&pag=1&pagecount=4>

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

AB Mol. recognition between 4aS-galanthamine (I) or 4aR-galanthamine (II) diastereoisomers and  $\alpha$ -cyclodextrin ( $\alpha$ -CD) were studied by use of docking and mol. dynamics simulation approaches. The binding energy of constructed II $\cdots\alpha$ -CD complexes is .apprx.17 kcal mol<sup>-1</sup> lower than that of I $\cdots\alpha$ -CD, implying a stronger binding ability of II with  $\alpha$ -CD than that of I. The theor. modeling result is consistent with our previous CZE result, which demonstrated that  $\alpha$ -CD is an efficient chiral additive for separating I and II. The modeling result also indicates that both hydrophobic interaction and H-bond force may work as major factors for mol. recognition between the galanthamine diastereoisomers and  $\alpha$ -CD.

IT 357-70-0

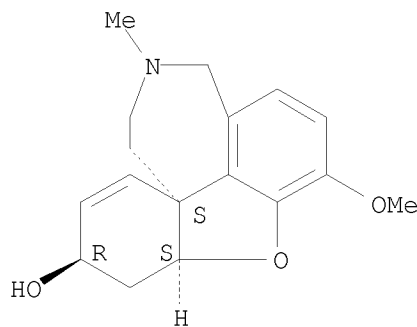
RL: PRP (Properties)

(mol. recognition between 4aS/4aR-galanthamine diastereoisomers and  $\alpha$ -cyclodextrin)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 769958-16-9

RL: PRP (Properties)

(mol. recognition between 4aS/R-galanthamine diastereoisomers and  $\alpha$ -cyclodextrin)

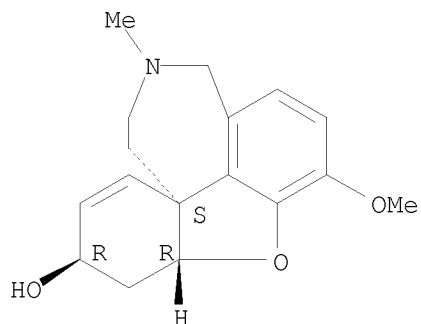
RN 769958-16-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-

10/573,517

methoxy-11-methyl-, (4aR,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

18

THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 26 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:174937 CAPLUS

DOCUMENT NUMBER: 140:223428

TITLE: Enantiomeric separation of galantamine in drug for Alzheimer's disease and its quality control by capillary electrophoresis

AUTHOR(S): Yan, Liu-Shui; Zhao, Ji-Yuan; Luo, Guo-An; Sun, Ming; Wang, Yi-Ming; Yang, Xue-Dong

CORPORATE SOURCE: Department of Chemistry, Tsinghua University, Beijing, 100084, Peop. Rep. China

SOURCE: Gaodeng Xuexiao Huaxue Xuebao (2004), 25(2), 256-260

CODEN: KTHPDM; ISSN: 0251-0790

PUBLISHER: Gaodeng Jiaoyu Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB A method for capillary electrophoretic enantiomeric separation of a novel drug for Alzheimer's disease, Galantamine, was established with  $\alpha$ -cyclodextrin as the chiral additive. General equations and data anal. approach are presented to relate mobilities to equilibrium consts. in simple binding equilibrium and used to determine bonding consts. and thermodyn. parameters for host-guest complexation of galantamine enantiomers with cyclodextrin selector. The effects of cyclodextrin concentration and type, buffer concentration and its pH, and separation voltage were investigated. The mechanism of enantioselectivity is discussed by combining with the computer simulating conformational anal. The maximal resolution of 3.60 was obtained. The bonding consts. of host-guest complex of galantamine enantiomers with  $\alpha$ -cyclodextrin, KR-CD and KS-CD, is 33.98 L/mol and 23.90 L/mol, resp. The established method was successfully applied to the detection of the non-effective component in the raw material of galantamine. Ten structural analogs were found, and the content of R enantiomer is 0.82%. The concentration linear rang is 0.015-1.0 mmol/L with

the

anal. precision of 0.20% and 2.6% for the measurement of migration time and peak area, resp. Thus, the method could be used as a rapid and reliable tool for quantity control of the drug.

IT 357-70-0, Galantamine 199014-26-1 664995-65-7  
665003-08-7

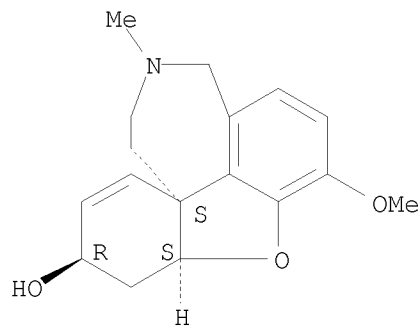
RL: ANT (Analyte); ANST (Analytical study)

(enantiomeric separation of galantamine in by capillary electrophoresis)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

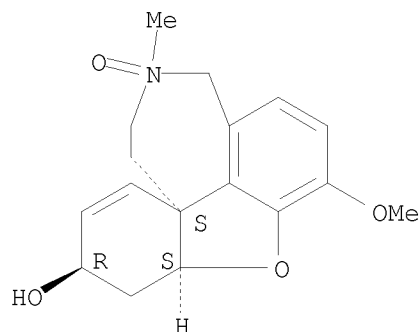


10/573,517

RN 199014-26-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 11-oxide, (4aS,6R,8aS)- (CA INDEX NAME)

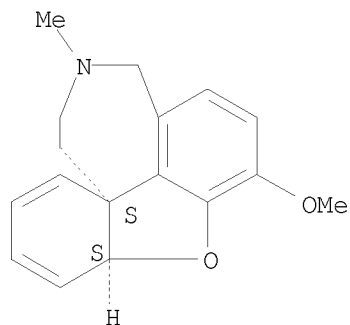
Absolute stereochemistry.



RN 664995-65-7 CAPLUS

CN 8aH-Benzofuro[3a,3,2-ef][2]benzazepine, 1,2,3,4-tetrahydro-7-methoxy-3-methyl-, (8aS,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

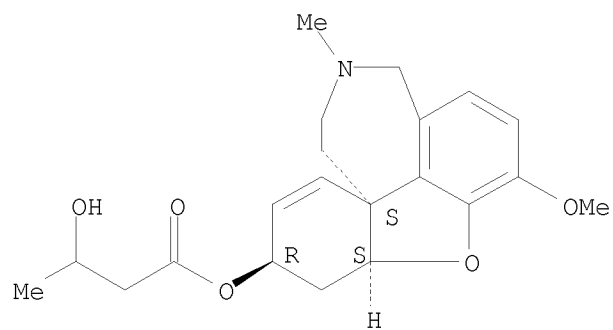


RN 665003-08-7 CAPLUS

CN Butanoic acid, 3-hydroxy-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

10/573,517



L61 ANSWER 27 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:173239 CAPLUS

DOCUMENT NUMBER: 141:20399

TITLE: Intraspecific variability in the alkaloid metabolism of *Galanthus elwesii*

AUTHOR(S): Berkov, Strahil; Sidjimova, Borjana; Evstatieva, Luba; Popov, Simeon

CORPORATE SOURCE: Institute of Botany, Bulgarian Academy of Sciences, Sofia, 1113, Bulg.

SOURCE: Phytochemistry (Elsevier) (2004), 65(5), 579-586  
CODEN: PYTCAS; ISSN: 0031-9422

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Alkaloid pattern of individuals from 16 Bulgarian *Galanthus elwesii* populations was investigated by GC/MS and TLC. Twenty-one Amaryllidaceae alkaloids were detected, and 14 of them were identified. Crinine-type alkaloids, haemanthamine or crinine, dominated alkaloid metabolism in most of the populations. The sep. individuals in one population showed variable alkaloid profiles (dominated by crinine or haemanthamine), whereas the individuals of the rest of populations had identical and characteristic alkaloid profiles. Some populations showed remarkable differences with respect to their pattern of alkaloid biosynthesis, main alkaloids, and number of alkaloids. Populations dominated by galanthamine-type alkaloids were found as well. These data demonstrate that, like the morphol. features, the alkaloid metabolism of *G. elwesii* is also variable.

IT 357-70-0, Galanthamine 41303-74-6, Nor-galanthamine

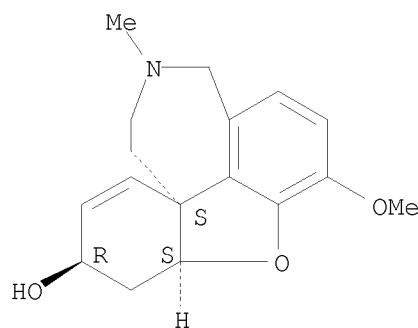
82644-83-5, O-Methyllleucotamine

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(intraspecific variability in alkaloid profiles of *Galanthus elwesii* populations from Bulgaria)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



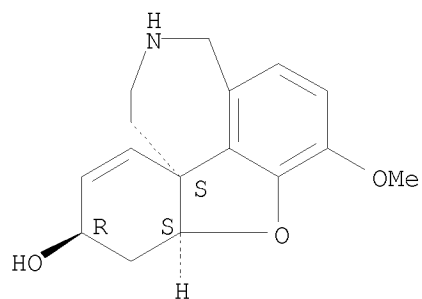
RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



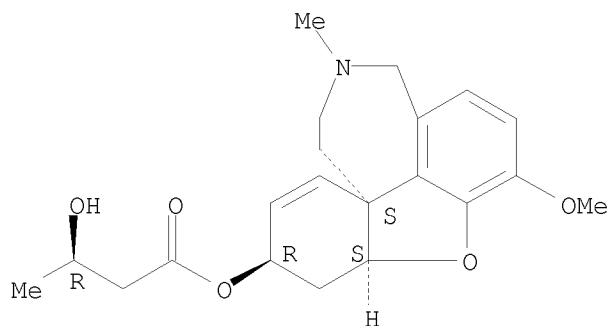
10/573,517



RN 82644-83-5 CAPLUS

CN Butanoic acid, 3-hydroxy-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, (3R)-(CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

22

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 28 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:967080 CAPLUS

DOCUMENT NUMBER: 140:181637

TITLE: Synthesis and evaluation of tritium labeled  
10-methylgalanthamine iodide: A novel compound to  
examine the mechanism of interaction of galanthamine  
derivatives with the nicotinic acetylcholine receptors

AUTHOR(S): Schildan, Andreas; Schirmacher, Ralf; Schirmacher,  
Esther; Samochocki, Marek; Christner, Claudia;  
Maelicke, Alfred; Roesch, Frank

CORPORATE SOURCE: Institute of Nuclear Chemistry, Johannes  
Gutenberg-University Mainz, Mainz, D-55128, Germany

SOURCE: Journal of Labelled Compounds & Radiopharmaceuticals  
(2003), 46(12), 1117-1125  
CODEN: JLCRD4; ISSN: 0362-4803

PUBLISHER: John Wiley &amp; Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:181637

AB A new promising galanthamine derivative, 10-[3H]methylgalanthamine iodide, was  
synthesized for binding studies to nicotinic acetylcholine receptors  
expressed in Torpedo elec. ray electroplaques. Galanthamine was reacted  
with [3H]methyl iodide to yield 10-[3H]methylgalanthamine iodide with a  
radiochem. yield of > 70% and a specific activity of 32 Ci/mmol after  
purification via solid phase extraction To test the ligand properties of the  
radioligand, calcium imaging and electrophysiol. of the non-radioactive  
analog were performed to obtain an EC50 of 270 nM, a Hill coefficient of 1.9  
and the induced cell current.

IT 3891-74-5P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);

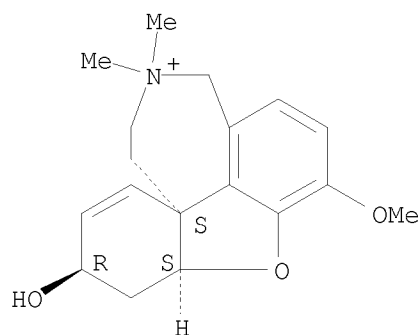
BIOL (Biological study); PREP (Preparation)

(preparation of 10-[3H]methylgalanthamine iodide and 10-  
[1H]methylgalanthamine iodide and binding of the unlabeled compound to  
nicotinic acetyl choline receptors)

RN 3891-74-5 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 1,2,3,4,8,8a-hexahydro-7-hydroxy-  
10-methoxy-2,2-dimethyl-, iodide (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

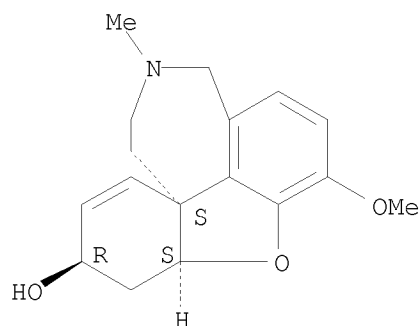
Absolute stereochemistry.

● I<sup>-</sup>

10/573,517

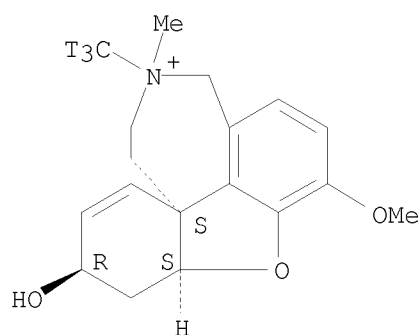
IT 357-70-0, Galanthamine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of 10-[3H]methylgalanthamine iodide and 10-[1H]methylgalanthamine iodide and binding of the unlabeled compound to nicotinic acetyl choline receptors)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 659724-66-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of 10-[3H]methylgalanthamine iodide and 10-[1H]methylgalanthamine iodide and binding of the unlabeled compound to nicotinic acetyl choline receptors)  
RN 659724-66-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-(methyl-t3)-, iodide, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 29 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:777805 CAPLUS

DOCUMENT NUMBER: 139:292388

TITLE: Methods for producing norgalanthamine, as well as isomers, salts and hydrates thereof

INVENTOR(S): Treu, Matthias; Hirnschall, Manfred; Froehlich, Johannes; Czollner, Laszlo; Kaelz, Beate; Kaelz, Thomas; Kuehnhackl, Peter

PATENT ASSIGNEE(S): Sanochemia Pharmazeutika Aktiengesellschaft, Austria; Jordis, Ulrich

SOURCE: PCT Int. Appl., 20 pp.

CODEN: PIXXD2

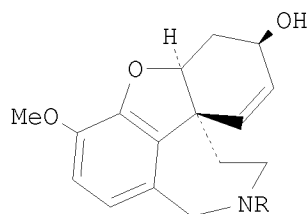
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003080623	A1	20031002	WO 2003-AT7	20030109
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2479394	A1	20031002	CA 2003-2479394	20030109
AU 2003205403	A1	20031008	AU 2003-205403	20030109
EP 1487839	A1	20041222	EP 2003-702175	20030109
EP 1487839	B1	20070418		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1646536	A	20050727	CN 2003-806822	20030109
EP 1681291	A1	20060719	EP 2006-8743	20030109
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
AT 360022	T	20070515	AT 2003-702175	20030109
IN 2004KN01332	A	20060526	IN 2004-KN1332	20040910
MX 2004PA09254	A	20050608	MX 2004-PA9254	20040923
HK 1074045	A1	20071005	HK 2005-105228	20050622
US 20060069251	A1	20060330	US 2005-508867	20051026
PRIORITY APPLN. INFO.:			AT 2002-463	A 20020325
			EP 2003-702175	A3 20030109
			WO 2003-AT7	W 20030109
OTHER SOURCE(S):			CASREACT 139:292388	
GI				



I

AB The invention relates to industrial scale-executable methods for producing norgalanthamine I [R = H] , norgalanthamine derivs. and their isomers salts or hydrates, e.g., I·HX [HX = HCl, (CO<sub>2</sub>H)<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>] . An oxidative demethylation and a catalytic demethylation of the corresponding galanthamine compds. I [R = Me] serve as methods for producing the compds. I [R = H] and I·HX. Thus, I·HX [R = H, X = Cl] was prepared from (-)-galanthamine via N-oxidation with m-ClC<sub>6</sub>H<sub>4</sub>CO<sub>3</sub>H in CHCl<sub>3</sub> followed by subsequent treatments with aqueous FeSO<sub>4</sub>·8H<sub>2</sub>O and HCl in CHCl<sub>3</sub>.

IT 357-70-0, (-)-Galanthamine

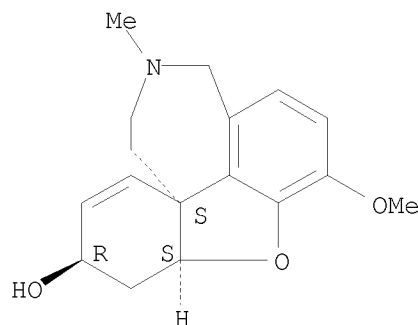
RL: RCT (Reactant); RACT (Reactant or reagent)

(catalytic demethylation or N-oxidation of, with peracids; industrial scale-executable methods for preparation of norgalanthamine, as well as isomers, salts and hydrates thereof)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 41303-74-6P, Norgalanthamine 608513-70-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

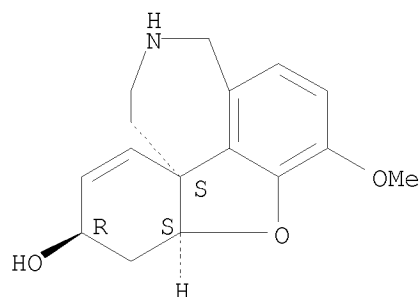
(industrial scale-executable methods for preparation of norgalanthamine, as well as isomers, salts and hydrates thereof)

RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



RN 608513-70-8 CAPLUS

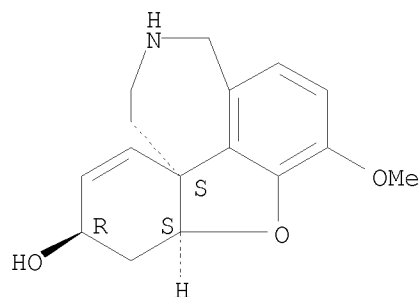
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)-, sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 41303-74-6

CMF C16 H19 N O3

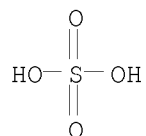
Absolute stereochemistry. Rotation (-).



CM 2

CRN 7664-93-9

CMF H2 O4 S



IT 496842-35-4P 608513-69-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and free base formation of; industrial scale-executable methods for preparation of norgalanthamine, as well as isomers, salts and hydrates)

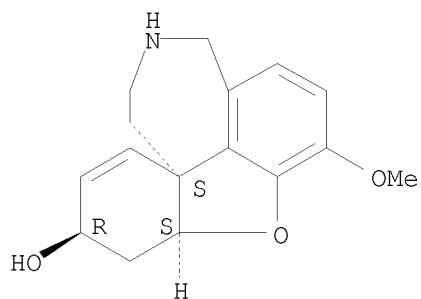
10/573,517

thereof)

RN 496842-35-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, hydrochloride (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

RN 608513-69-5 CAPLUS

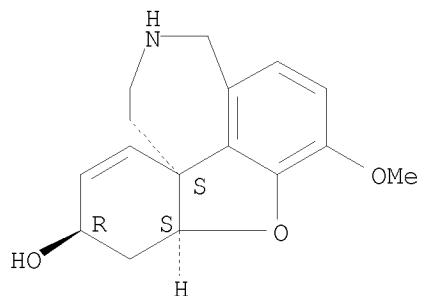
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, ethanedioate (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

CM 1

CRN 41303-74-6

CMF C16 H19 N O3

Absolute stereochemistry. Rotation (-).

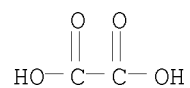


CM 2

CRN 144-62-7

CMF C2 H2 O4

10/573,517



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L61 ANSWER 30 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:645870 CAPLUS

DOCUMENT NUMBER: 140:192772

TITLE: (-)-9-Dehydrogalanthaminium bromide, a new cholinesterase inhibitor, enhances place and object recognition memory in young and old rats

AUTHOR(S): Lamirault, Laetitia; Guillou, Catherine; Thal, Claude; Simon, Herve

CORPORATE SOURCE: CNRS UMR 5541 Laboratoire de Neuropsychobiologie des Desadaptations, Universite Victor Segalen Bordeaux 2, Bordeaux, 33076, Fr.

SOURCE: Neurobiology of Learning and Memory (2003), 80(2), 113-122

CODEN: NLMEFR; ISSN: 1074-7427

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In a previous study, we showed that (-)-9-dehydrogalanthaminium bromide, a synthetic galanthamine derivative, was more potent than galanthamine in inhibiting acetylcholinesterase. We studied here the action of this new compound on recognition memory in young and old rats, using a two-trial recognition task designed to test both place and object recognition. (-)-9-Dehydrogalanthaminium bromide was injected (0.3, 1, and 3 mg/kg, i.p.) in young and old rats before the acquisition phase, immediately after it, or before the retrieval phase of the task, in order to determine the stage of information processing affected by the compound. (-)-9-Dehydrogalanthaminium bromide improved both place and object recognition in young rats, via an enhancement of acquisition (3 mg/kg: place recognition; 1 and 3 mg/kg: object recognition) and consolidation (1 and 3 mg/kg) information processing. In old rats, (-)-9-dehydrogalanthaminium bromide improved performance by acting on the acquisition processes of place (0.3, 1, and 3 mg/kg) and object (1 and 3 mg/kg) recognition. These results provide information on the profile of activity of (-)-9-dehydrogalanthaminium bromide on memory processes, and suggest that this new compound could have utility in the treatment of cognitive dysfunction occurring in Alzheimer's disease or in the normal course of aging.

IT 365571-13-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

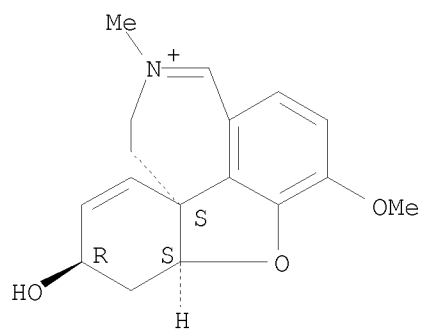
((-)-9-dehydrogalanthaminium bromide, a new cholinesterase inhibitor, enhances place and object recognition memory in young and old rats)

RN 365571-13-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



REFERENCE COUNT:

45

THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 31 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:485897 CAPLUS

DOCUMENT NUMBER: 139:246130

TITLE: Synthesis and structure-activity relationships of open D-Ring galanthamine analogues

AUTHOR(S): Herlem, Denyse; Martin, Marie-Therese; Thal, Claude; Guillou, Catherine

CORPORATE SOURCE: C.N.R.S., Institut de Chimie des Substances

Naturelles, Gif-sur-Yvette, 91198, Fr.

SOURCE: Bioorganic &amp; Medicinal Chemistry Letters (2003), 13(14), 2389-2391

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:246130

AB Open D-ring galanthamine analogs were prepared using ring-opening reactions of the quaternary urethane or oxazolidine functions and were evaluated for their acetylcholinesterase (AChE) and butyrylcholinesterase (BChE) inhibition potency.

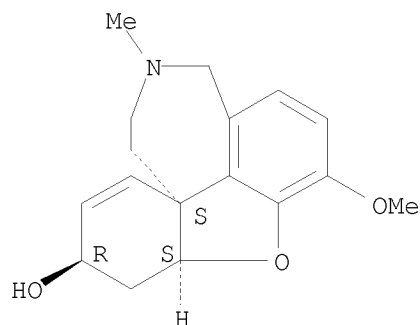
IT 357-70-0, Galanthamine

RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthesis of open D-Ring galanthamine analogs)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 596828-86-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

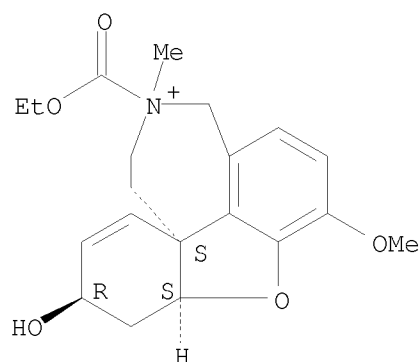
(synthesis of open D-Ring galanthamine analogs)

RN 596828-86-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-(ethoxycarbonyl)-4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, chloride, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

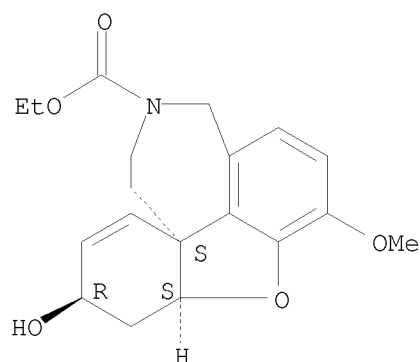
10/573,517



● Cl<sup>-</sup>

IT 596828-87-4P 596828-90-9P  
RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis of open D-Ring galanthamine analogs and structure-activity relationships)  
RN 596828-87-4 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carboxylic acid, 3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, ethyl ester, (4aS,7R,8aS)- (CA INDEX NAME)

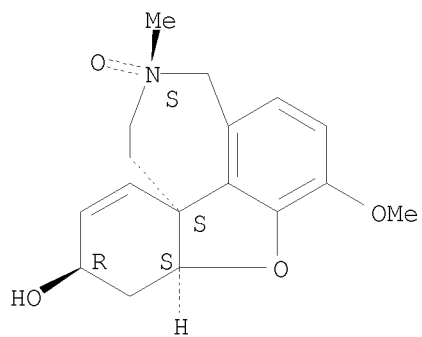
Absolute stereochemistry.



RN 596828-90-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 11-oxide, (4aS,6R,8aS,11S)- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517

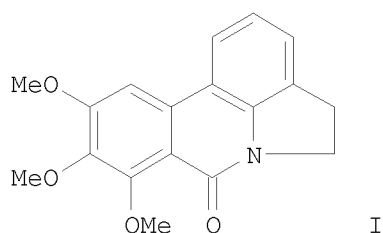


REFERENCE COUNT:

26

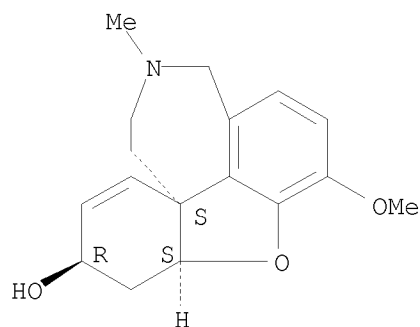
THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 32 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:339036 CAPLUS  
 DOCUMENT NUMBER: 139:146490  
 TITLE: Alkaloids from *Eucharis amazonica* (Amaryllidaceae)  
 AUTHOR(S): Cabezas, Fabio; Ramirez, Arnolando; Viladomat, Francesc;  
 Codina, Carles; Bastida, Jaume  
 CORPORATE SOURCE: Departamento de Quimica, Grupo de Estudios  
 Ambientales, Universidad del Cauca, Popayan, Colombia  
 SOURCE: Chemical & Pharmaceutical Bulletin (2003), 51(3),  
 315-317  
 CODEN: CPBTAL; ISSN: 0009-2363  
 PUBLISHER: Pharmaceutical Society of Japan  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB Thirteen alkaloids have been isolated from dried bulbs and leaves of  
 flowering *Eucharis amazonica* (Amaryllidaceae). The alkaloids,  
 7-methoxyoxoassoanine (e.g. I), 6-O-methylpretazettine and  
 apohaemanthamine, are reported for the first time from a natural source.  
 IT 357-70-0, Galanthamine 98693-64-2  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (alkaloids from *Eucharis amazonica*)  
 RN 357-70-0 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
 methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

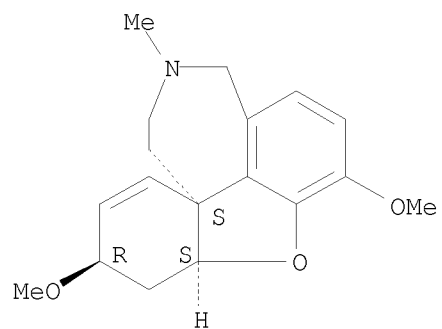
Absolute stereochemistry. Rotation (-).



RN 98693-64-2 CAPLUS  
 CN Galanthamine, O-methyl- (7CI, 9CI) (CA INDEX NAME)

10/573,517

Absolute stereochemistry.



REFERENCE COUNT:

14

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 33 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:202489 CAPLUS  
 DOCUMENT NUMBER: 138:231759  
 TITLE: Treatment of dementia and memory disorders with  
 anticonvulsants and acetylcholinesterase inhibitors  
 INVENTOR(S): Plata-Salaman, Carlos  
 PATENT ASSIGNEE(S): Ortho-McNeil Pharmaceutical, Inc., USA  
 SOURCE: PCT Int. Appl., 31 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003020289	A1	20030313	WO 2002-US27504	20020828
WO 2003020289	A9	20030710		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2459146	A1	20030313	CA 2002-2459146	20020828
AU 2002323467	A1	20030318	AU 2002-323467	20020828
US 20030060423	A1	20030327	US 2002-229878	20020828
EP 1423127	A1	20040602	EP 2002-757450	20020828
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
JP 2005502680	T	20050127	JP 2003-524596	20020828
MX 2004PA01959	A	20050217	MX 2004-PA1959	20040301
PRIORITY APPLN. INFO.:			US 2001-315978P	P 20010830
			WO 2002-US27504	W 20020828

OTHER SOURCE(S): MARPAT 138:231759

AB The invention describes therapy for the treatment of dementia, memory disorders and the behavioral, psychiatric and/or psychol. manifestations or symptoms associated with dementia or a memory disorder, comprising co-therapy with a therapeutically effective amount of one or more acetylcholinesterase inhibitors (e.g. galantamine) with one or more anticonvulsant derivs. (e.g. topiramate).

IT 357-70-0, Galantamine 501328-33-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(acetylcholinesterase inhibitors and anticonvulsants for treatment of dementia and memory disorders)

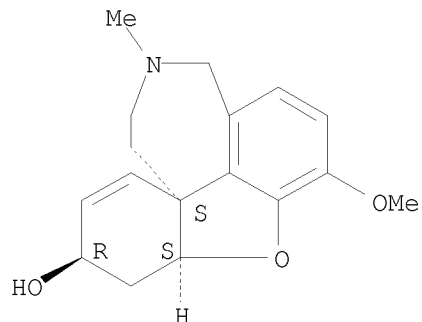
RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



10/573,517



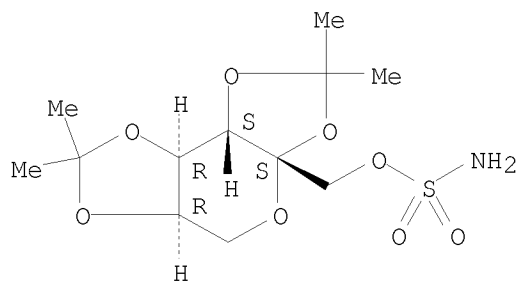
RN 501328-33-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, mixt. with 2,3:4,5-bis-O-(1-methylethylidene)- $\beta$ -D-fructopyranose sulfamate (9CI) (CA INDEX NAME)

CM 1

CRN 97240-79-4

CMF C12 H21 N O8 S

Absolute stereochemistry. Rotation (-).



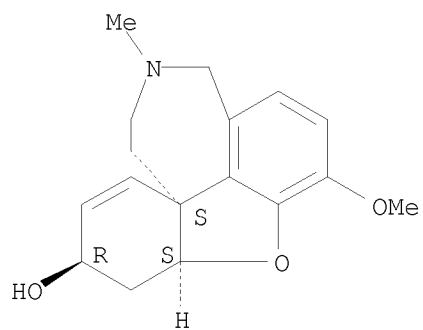
CM 2

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).

10/573,517



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 34 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:189320 CAPLUS

DOCUMENT NUMBER: 139:69396

TITLE: Synthesis and stereoselective dealkylation of N-chiral quaternary N-alkyl galanthaminium halides

AUTHOR(S): Hirnschall, Manfred; Treu, Matthias; Mereiter, Kurt; Hametner, Christian; Frohlich, Johannes; Jordis, Ulrich

CORPORATE SOURCE: Institute of Applied Synthetic Chemistry, Vienna University of Technology, Vienna, A-1060, Austria

SOURCE: Tetrahedron: Asymmetry (2003), 14(6), 675-681

CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:69396

AB The synthesis of N-chiral galanthaminium halides and their stereoselective dealkylation is described. The stereochem. of two key compds. was determined by x-ray structure anal.

IT 550346-83-3P 550346-85-5P

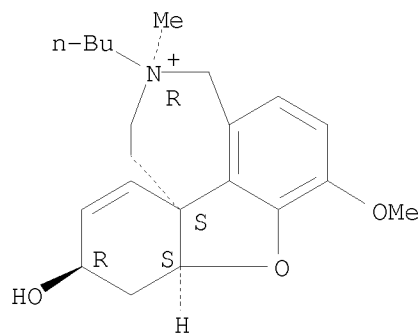
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and stereoselective alkylation of N-chiral quaternary N-alkyl galanthaminium halides)

RN 550346-83-3 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 3-butyl-1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-, iodide (1:1), (3R,8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

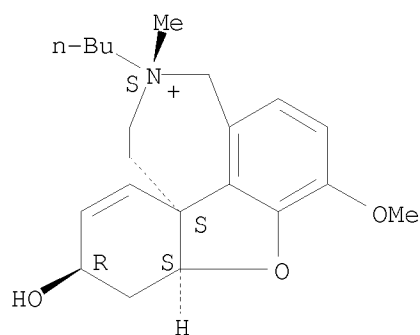
● I<sup>-</sup>

RN 550346-85-5 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 3-butyl-1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-, iodide (1:1), (3S,8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

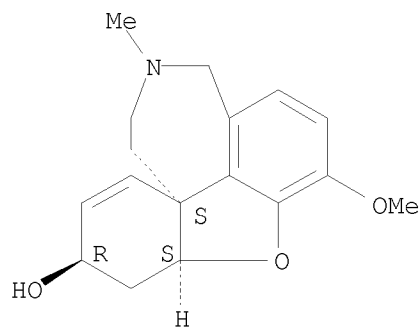
10/573,517



● I<sup>-</sup>

IT 357-70-0 365570-18-9 550346-82-2,  
N-Butylgalanthamine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation and stereoselective alkylation of N-chiral quaternary N-alkyl  
galanthaminium halides)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

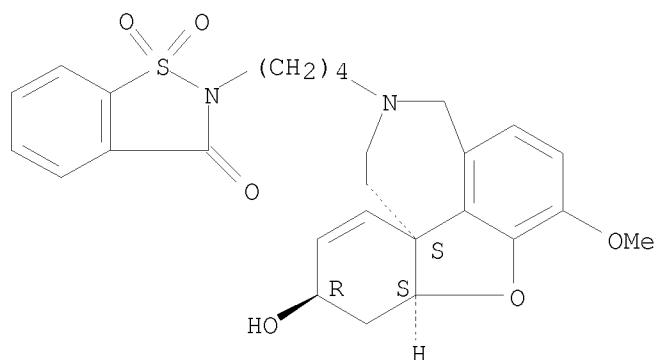
Absolute stereochemistry. Rotation (-).



RN 365570-18-9 CAPLUS  
CN 1,2-Benzisothiazol-3(2H)-one, 2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-  
hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]-,  
1,1-dioxide (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

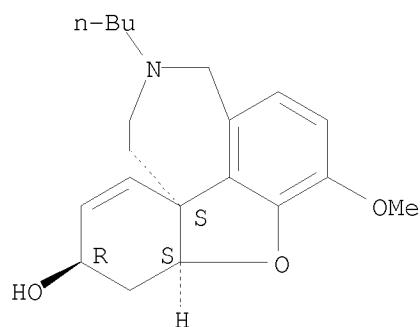
10/573,517



RN 550346-82-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-butyl-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



IT 3891-74-5P, N-Methylgalanthaminium iodide 549528-21-4P

549528-22-5P 550346-84-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

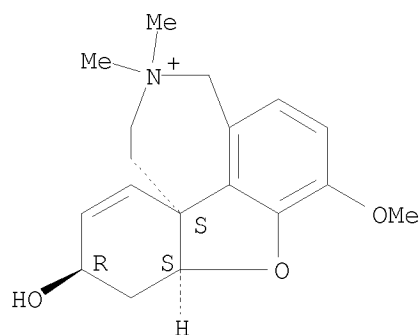
(preparation and stereoselective alkylation of N-chiral quaternary N-alkyl galanthaminium halides)

RN 3891-74-5 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 1,2,3,4,8,8a-hexahydro-7-hydroxy-10-methoxy-2,2-dimethyl-, iodide (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

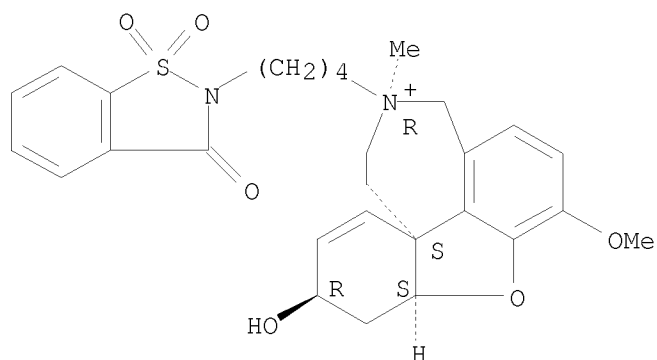
10/573,517



● I<sup>-</sup>

RN 549528-21-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 3-[4-(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)butyl]-1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-, bromide (1:1), (3R,8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

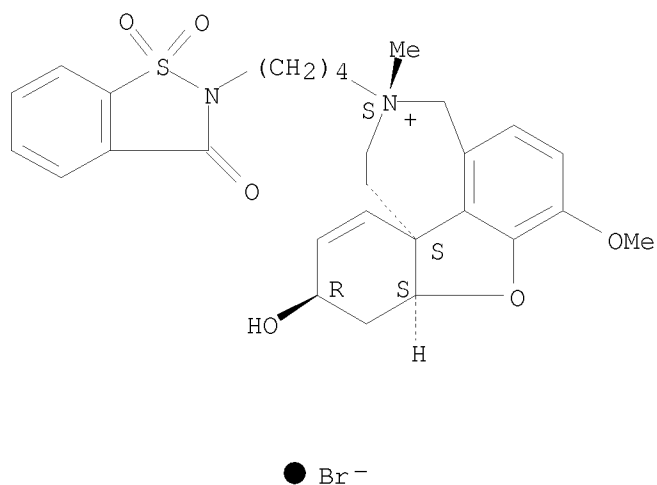


● Br<sup>-</sup>

RN 549528-22-5 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 3-[4-(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)butyl]-1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-, bromide (1:1), (3S,8aS,10R,12aS)- (CA INDEX NAME)

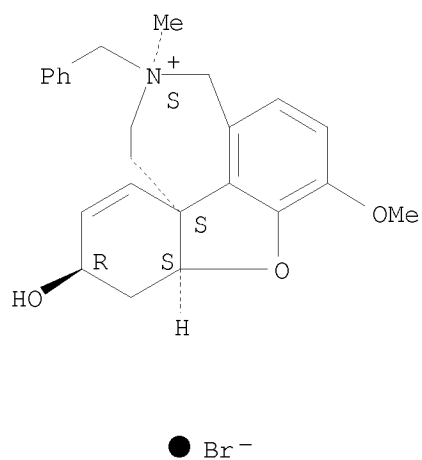
Absolute stereochemistry. Rotation (-).

10/573,517



RN 550346-84-4 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-(phenylmethyl)-, bromide (1:1), (4aS,6R,8aS,11S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



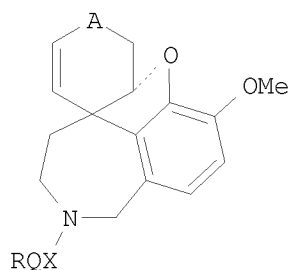
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 35 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:68593 CAPLUS  
 DOCUMENT NUMBER: 138:131138  
 TITLE: Galanthamines as acetylcholine esterase inhibitors  
 INVENTOR(S): Miyamoto, Shuichi; Kita, Yasuyuki; Arisawa, Mitsuhiro;  
 Morita, Nobuyoshi  
 PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003026683	A	20030129	JP 2001-208946	20010710
PRIORITY APPLN. INFO.:			JP 2001-208946	20010710
OTHER SOURCE(S):	MARPAT 138:131138			

GI



AB Galanthamines I [R = H, (un)substituted C1-6 alkyl; A = CO, CHOH; X = (un)substituted C2-4 alkylene; Q = (un)substituted cycloalkylene, arylene, heterocyclylene] or their salts, useful for treatment of Alzheimer's disease, are claimed. I (A = CO, AlkQR = H) was condensed with 1-(3-tert-butyldimethylsiloxypropyl)-4-(3-iodopropyl)benzene and reduced by L-Selectride to give I [A = CHOH, XQR = (CH<sub>2</sub>)<sub>3</sub>C<sub>6</sub>H<sub>4</sub>(CH<sub>2</sub>)<sub>3</sub>OSiMe<sub>2</sub>Bu-tert], which in vitro inhibited acetylcholine esterase with IC<sub>50</sub> of 103 nM.

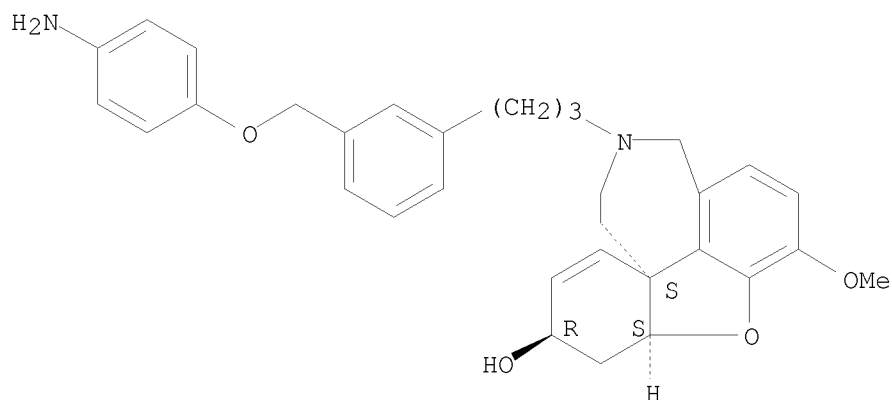
IT 491576-96-6P 491576-97-7P 491576-98-8P  
 491576-99-9P 491577-00-5P 491577-01-6P  
 491577-02-7P 491577-03-8P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of galanthamines as acetylcholine esterase inhibitors)

RN 491576-96-6 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[3-[3-[(4-aminophenoxy)methyl]phenyl]propyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



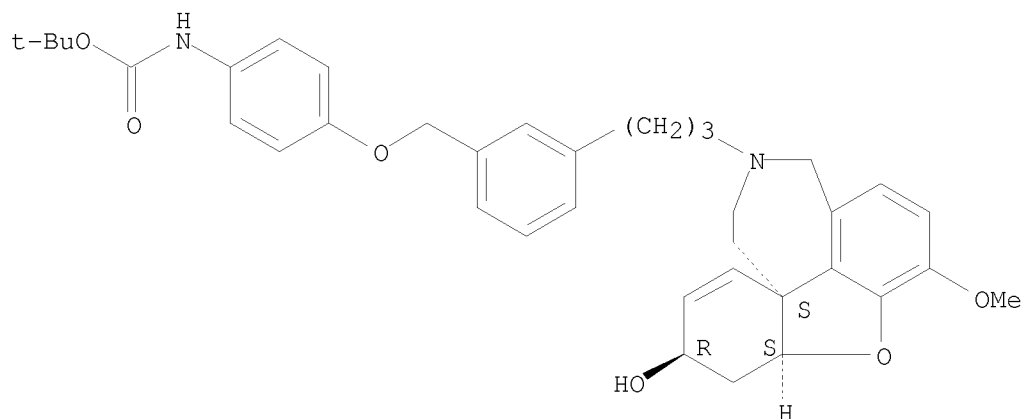
10/573,517



RN 491576-97-7 CAPLUS

CN Carbamic acid, [4-[[3-[3-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]propyl]phenyl]methoxy]phenyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

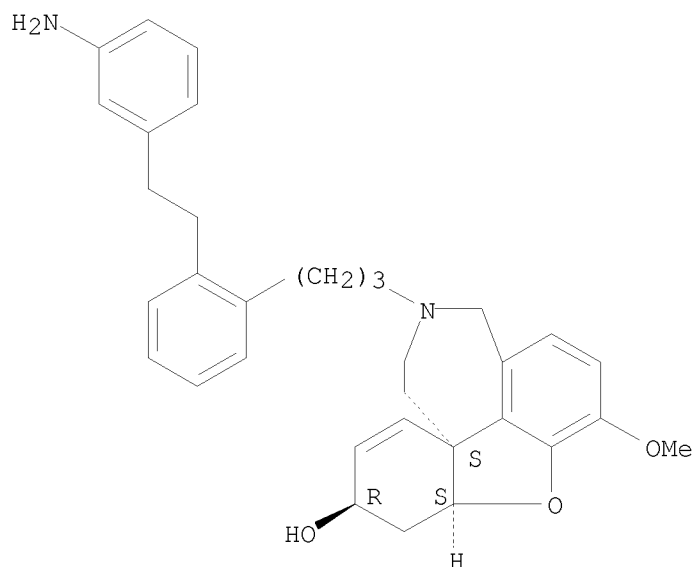


RN 491576-98-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[3-[2-[2-(3-aminophenyl)ethyl]phenyl]propyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

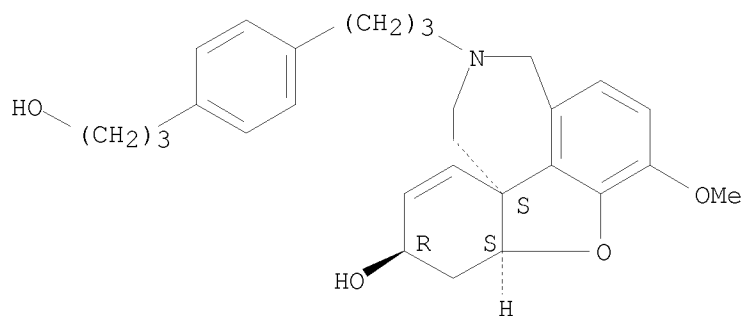
Absolute stereochemistry.

10/573,517



RN 491576-99-9 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-3-[3-[4-(3-hydroxypropyl)phenyl]propyl]-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

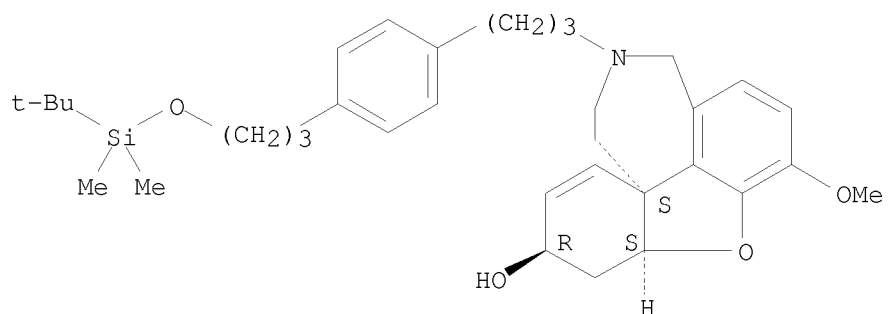
Absolute stereochemistry.



RN 491577-00-5 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3-[4-[3-[(1,1-dimethylethyl)dimethylsilyl]oxy]propyl]phenyl]propyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

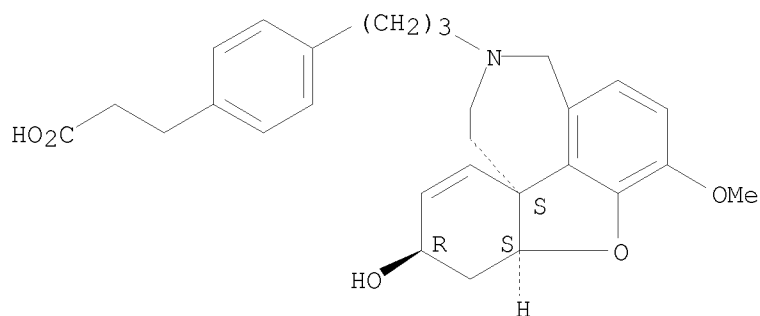
10/573,517



RN 491577-01-6 CAPLUS

CN Benzenepropanoic acid, 4-[3-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]propyl]- (CA INDEX NAME)

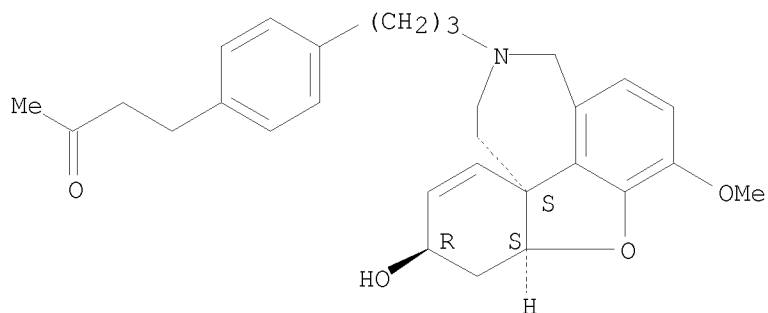
Absolute stereochemistry.



RN 491577-02-7 CAPLUS

CN 2-Butanone, 4-[4-[3-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]propyl]phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



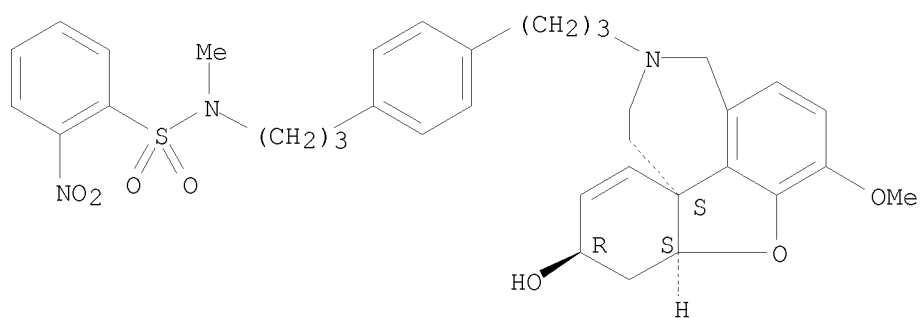
RN 491577-03-8 CAPLUS

CN Benzenesulfonamide, N-methyl-2-nitro-N-[3-[4-[3-[(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-

10/573,517

yl]propyl]phenyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



L61 ANSWER 36 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:65290 CAPLUS

DOCUMENT NUMBER: 139:332360

TITLE: Combined treatment with galanthaminium bromide, a new cholinesterase inhibitor, and RS 67333, a partial agonist of 5-HT<sub>4</sub> receptors, enhances place and object recognition in young adult and old rats

AUTHOR(S): Lamirault, Laetitia; Guillou, Catherine; Thal, Claude; Simon, Herve

CORPORATE SOURCE: Lab. Neuropsychobiol. Desadaptations, CNRS UMR 5541, Univ. Victor Segalen Bordeaux, Bordeaux, 33076, Fr.

SOURCE: Progress in Neuro-Psychopharmacology & Biological Psychiatry (2003), 27(1), 185-195

CODEN: PNPPD7; ISSN: 0278-5846

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The present study was designed to investigate whether a combination of a new acetylcholinesterase inhibitor the authors have synthesized, galanthaminium bromide, and an agonist of 5-hydroxytryptamine<sub>4</sub> receptors, RS 67333, at doses ineffective alone, improves performance in tasks involving place and object recognition memory. Dose responses of each compound were determined to select doses without effect alone. Accordingly, young adult rats were injected i.p. with galanthaminium bromide (0.3 mg/kg) + RS 67333 (0.01 mg/kg), and old rats with galanthaminium bromide (0.1 mg/kg for place and 0.3 mg/kg for object recognition) + RS 67333 (1 mg/kg). Drugs were injected before the acquisition phase, immediately after it, or before the retrieval phase to determine the stage of information processing affected by treatments. Doses of galanthaminium bromide and RS 67333, without effect on their own, jointly improved both place and object recognition in young adult rats via an enhancement of acquisition and consolidation information processing. In old rats, the combined treatment enhanced performance by acting on the acquisition processes of place recognition and on the acquisition and consolidation processes of object recognition. These results indicate that combining agents that act on different neuronal targets may be more powerful than either treatment alone, enabling use of lower doses of each compound, thereby attenuating the adverse effects of the individual drugs. A bitherapeutic strategy of this kind might thus be of interest in the treatment of the cognitive deficits related to "normal" or pathol. aging.

IT 365571-13-7

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

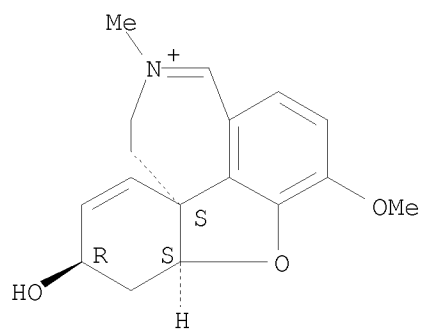
(combined treatment with galanthaminium bromide and RS 67333 enhances place and object recognition in young adult and old rats)

RN 365571-13-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517

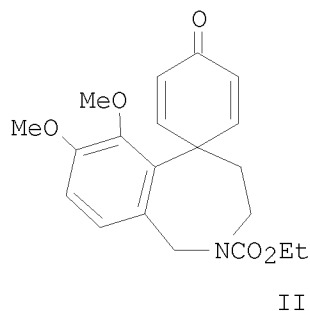
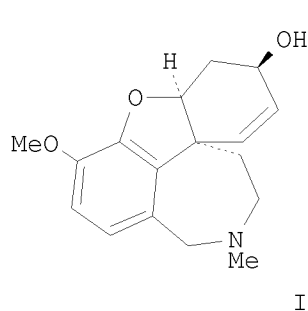


REFERENCE COUNT:

55

THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

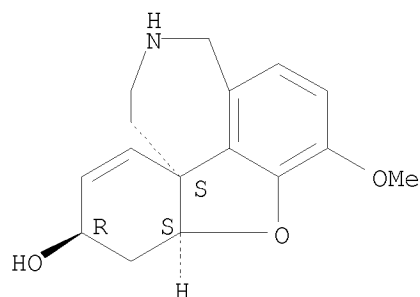
L61 ANSWER 37 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:875815 CAPLUS  
 DOCUMENT NUMBER: 138:354127  
 TITLE: Synthesis of galanthamine  
 AUTHOR(S): Czollner, Laszlo; Treu, Matthias; Froehlich, Johannes;  
 Kueenburg, Bernhard; Jordis, Ulrich  
 CORPORATE SOURCE: Sanochemia Pharmazeutika AG, Neufeld, 2491, Austria  
 SOURCE: ARKIVOC (Gainesville, FL, United States) [online  
 computer file] (2001), (1), 191-200  
 CODEN: AGFUAR  
 URL: <http://www.arkat-usa.org/ark/journal/Volume2/Part3/General/1-167G/I-167Gw.pdf>  
 PUBLISHER: Arkat USA Inc.  
 DOCUMENT TYPE: Journal; (online computer file)  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:354127  
 GI



AB The synthesis of (±)- and (-)-galanthamine (I) via 3,4-dihydro-6,7-dimethoxy-4'-oxo[spiro-[5H]-2-benzazepine-5,1'-[2]cyclohexene]-2(1H)-carboxylic acid Et ester (II) is described.  
 IT 41303-52-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and ethoxycarbonylation of; synthesis of galanthamine through brominated spiro intermediate)  
 RN 41303-52-0 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

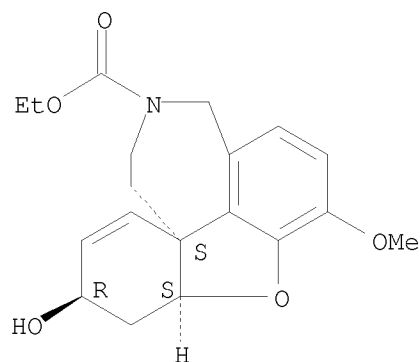
Relative stereochemistry.

10/573,517



IT 518982-22-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and oxidation of; synthesis of galanthamine through brominated  
spiro intermediate)  
RN 518982-22-4 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carboxylic acid,  
3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, ethyl ester, (4aR,7S,8aR)-rel-  
(CA INDEX NAME)

Relative stereochemistry.

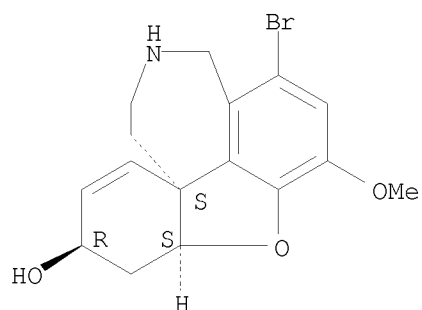


IT 179107-99-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and reductive debromination of; synthesis of galanthamine  
through brominated spiro intermediate)  
RN 179107-99-4 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-  
hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

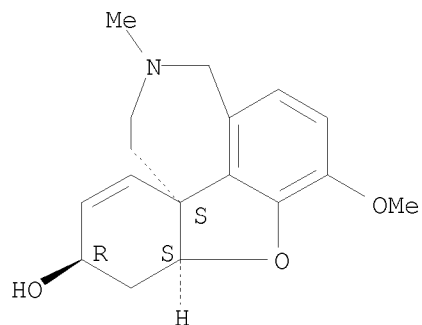


10/573,517



IT 357-70-0P, (-)-Galanthamine  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of galanthamine through brominated spiro intermediate)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 38 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:763990 CAPLUS

DOCUMENT NUMBER: 138:153691

TITLE: Synthesis of 3H-, 14C-, and stable-isotope-labelled galantamine

AUTHOR(S): Janssen, Cor. G. M.; Thijssen, Jos B. A.; Verluyten, Willy L. M.

CORPORATE SOURCE: Department of Non-clinical Pharmacokinetics, Johnson and Johnson Pharmaceutical Research and Development, Beerse, B-2340, Belg.

SOURCE: Journal of Labelled Compounds & Radiopharmaceuticals (2002), 45(10), 841-855  
CODEN: JLCRD4; ISSN: 0362-4803

PUBLISHER: John Wiley &amp; Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:153691

AB Reminyl is a newly approved drug, used in the treatment of mild to moderate Alzheimer disease. The active compound, galantamine, was initially isolated from the bulbs of certain Narcissus species, but is at the moment also produced synthetically. In the process leading to the final approval, the synthesis of tritium-, carbon-14- and stable-isotope-labeled galantamine for pharmacokinetic studies was required. Racemic ( $\pm$ )-1-bromonarwedine, a compound available as intermediate from the com. synthesis, was transformed to racemic 1-bromogalantamine. Catalytic bromo-tritium exchange, followed by HPLC purification and resolution afforded tritium-labeled galantamine. The [14C]-label was introduced on the nitrogen as well as on the oxygen-Me position. This was achieved by N- and O-demethylation of galantamine and reaction of the thoroughly purified intermediate with [14C]-Me iodide. Stable-isotope-labeled galantamine was obtained likewise by  $^{13}\text{CD}_3\text{OD}$ -methylation of O-demethylated galantamine under Mitsunobu conditions.

IT 496842-37-6P

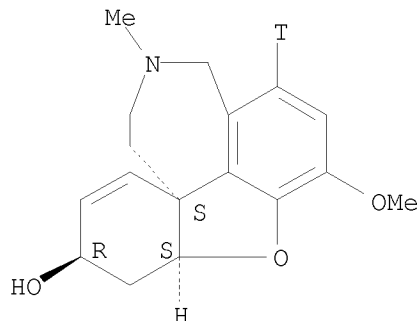
RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)

(synthesis of tritium, carbon, and stable-isotope-labeled galantamine)

RN 496842-37-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-1-t-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 1953-04-4, Galantamine hydrobromide

RL: RCT (Reactant); RACT (Reactant or reagent)

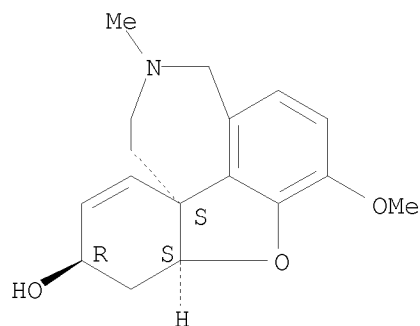
10/573,517

(synthesis of tritium, carbon, and stable-isotope-labeled galantamine)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HBr

IT 179107-98-3P 496842-35-4P

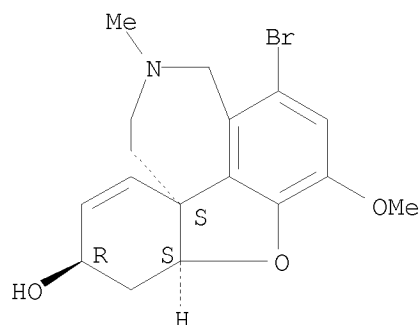
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of tritium, carbon, and stable-isotope-labeled galantamine)

RN 179107-98-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

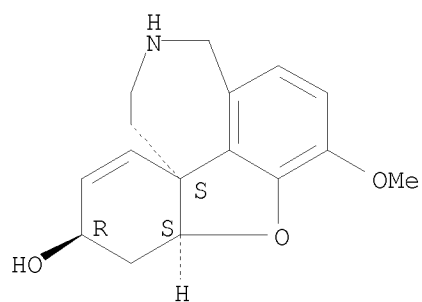


RN 496842-35-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, hydrochloride (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

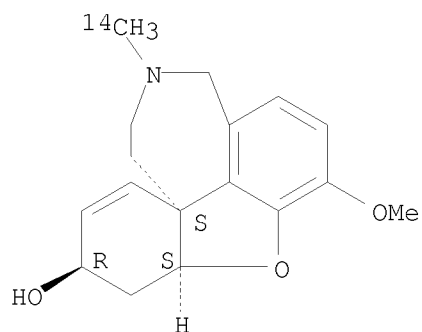
10/573,517



● HCl

IT 496842-36-5P 496842-38-7P 496842-39-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of tritium, carbon, and stable-isotope-labeled galantamine)  
RN 496842-36-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(methyl-14C)-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

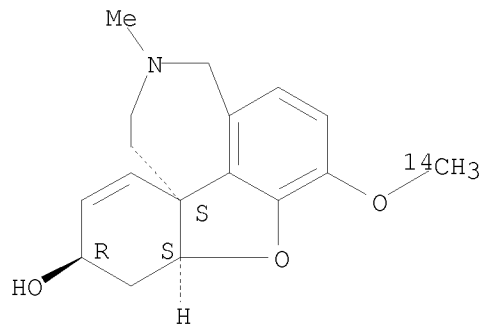
Absolute stereochemistry. Rotation (-).



RN 496842-38-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-(methoxy-14C)-11-methyl-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

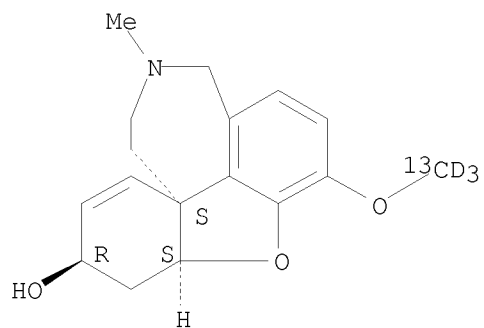
10/573,517



RN 496842-39-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-(methoxy-<sup>13</sup>C-d<sub>3</sub>)-11-methyl-, hydrobromide, (4a*S*,6*R*,8a*S*)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HBr

REFERENCE COUNT:

35

THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 39 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:701973 CAPLUS

DOCUMENT NUMBER: 138:395909

TITLE: Acetylcholinesterase inhibitory activity of some Amaryllidaceae alkaloids and Narcissus extracts

AUTHOR(S): Lopez, Susana; Bastida, Jaume; Viladomat, Francesc; Codina, Carles

CORPORATE SOURCE: Facultat de Farmacia, Departament de Productes Naturals, Biologia Vegetal i Edafologia, Universitat de Barcelona, Barcelona, Catalunya, 08028, Spain

SOURCE: Life Sciences (2002), 71(21), 2521-2529

CODEN: LIFSAK; ISSN: 0024-3205

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Amaryllidaceous plants produce pharmacol. active alkaloids, galanthamine being the most interesting for its use in the treatment of Alzheimer's disease as a cholinesterase inhibitor. The aim of this work was to test 23 pure Amaryllidaceae alkaloids and 26 exts. from different species of the genus Narcissus for their acetylcholinesterase inhibitory activity using galanthamine as a reference. Only seven alkaloids, belonging to the galanthamine and lycorine skeleton types, exhibited such an effect, sanguinine being the most active, even more than galanthamine. All the exts. with the highest acetylcholinesterase inhibitory activity contained galanthamine except that of *N. assoanus*, a lycorine type alkaloid-bearing species.

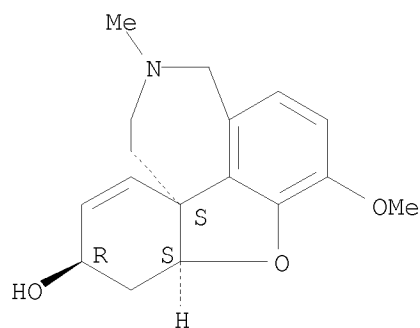
IT 357-70-0, Galanthamine 156040-03-8, Epinorgalanthamine

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (acetylcholinesterase inhibitory activity of Amaryllidaceae alkaloids and Narcissus exts.)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

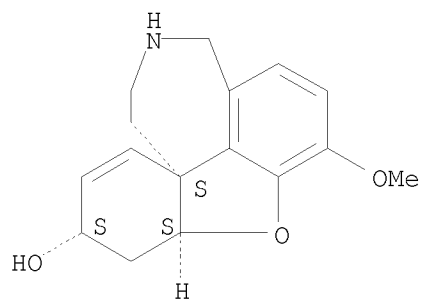


RN 156040-03-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10S,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



REFERENCE COUNT:

28

THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 40 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:623498 CAPLUS

DOCUMENT NUMBER: 138:89944

TITLE: An efficient enantioselective synthesis of (-)-galanthamine

AUTHOR(S): Trost, Barry M.; Tang, Weiping

CORPORATE SOURCE: Department of Chemistry, Stanford University, Stanford, CA, 94305-5080, USA

SOURCE: Angewandte Chemie, International Edition (2002), 41(15), 2795-2797

CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:89944

AB An effective sequence: palladium-catalyzed asym. allylic alkylation, Heck cyclization, and diastereoselective allylic oxidation were used in the total synthesis of (-)-galanthamine in 14.8% overall yield and with 96 % ee. This improved procedure provides the shortest and most efficient non-biomimetic synthesis of the acetylcholinesterase inhibitor.

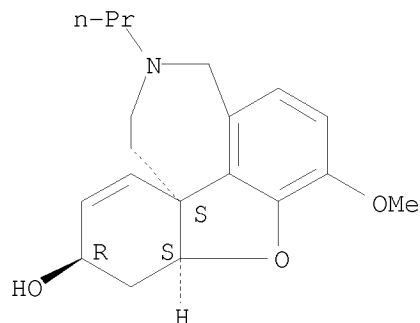
IT 366485-20-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(SPH-1339; efficient enantioselective synthesis of (-)-galanthamine)

RN 366485-20-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-propyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 357-70-0P, (-)-Galanthamine

RL: SPN (Synthetic preparation); PREP (Preparation)  
(efficient enantioselective synthesis of (-)-galanthamine)

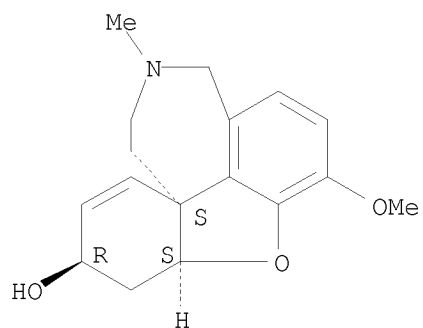
RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



10/573,517



REFERENCE COUNT:

50

THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 41 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:328933 CAPLUS

DOCUMENT NUMBER: 137:272764

TITLE: The metabolism and excretion of galantamine in rats, dogs, and humans

AUTHOR(S): Mannens, G. S. J.; Snel, C. A. W.; Hendrickx, J.; Verhaeghe, T.; Le Jeune, L.; Bode, W.; Van Beijsterveldt, L.; Lavrijsen, K.; Leempoels, J.; Van Osselaer, N.; Van Peer, A.; Meuldermans, W.

CORPORATE SOURCE: Department of Preclinical Pharmacokinetics, Johnson &amp; Johnson Pharmaceutical Research and Development, Janssen Pharmaceutica N.V., Beerse, B-2340, Belg.

SOURCE: Drug Metabolism and Disposition (2002), 30(5), 553-563  
CODEN: DMDSAI; ISSN: 0090-9556

PUBLISHER: American Society for Pharmacology and Experimental Therapeutics

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The metabolism and excretion of orally administered 3H-labeled galantamine-HBr was investigated in rats and dogs given a dose of 2.5 mg base-equivalent/kg body weight and in humans given 4 mg base-equivalent. Both poor and extensive metabolizers for cytochrome P 450 (CYP) 2D6 were included in the human study. Urine, feces, and plasma samples were collected for up to 96 h (rats) or 168 h (dogs and humans) after administration. The radioactivity of the samples and the concns. of galantamine and its major metabolites were analyzed. In all 3 species, galantamine and its metabolites were predominantly excreted in the urine (from 60% in male rats to 93% in humans). Excretion of radioactivity was rapid and nearly complete 96 h after administration in all 3 species. Major metabolic pathways were glucuronidation, O-demethylation, N-demethylation, N-oxidation, and epimerization. All the metabolic pathways observed in humans also occurred in at least one of the animal species. In extensive metabolizers for CYP2D6, urinary metabolites resulting from O-demethylation represented 33.2% of the dose compared with 5.2% in poor metabolizers, who showed correspondingly higher urinary excretion of unchanged galantamine and its N-oxide. The glucuronide of O-demethylgalantamine represented up to 19% of the plasma radioactivity in extensive metabolizers but could not be detected in poor metabolizers. Nonvolatile radioactivity and unchanged galantamine plasma kinetics were similar for poor and extensive metabolizers. Genetic polymorphism in the expression of CYP2D6 is not expected to affect the pharmacodynamics of galantamine.

IT 357-70-0, Galantamine 1953-04-4, Galantamine hydrobromide

RL: BSU (Biological study, unclassified); PKT (Pharmacokinetics); BIOL (Biological study)

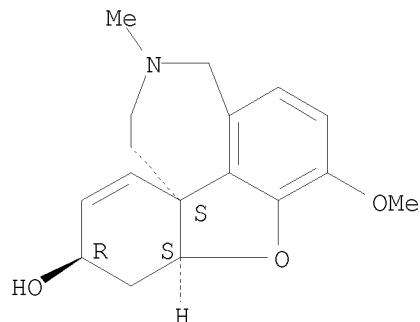
(galantamine metabolism and excretion in rats, dogs, and humans)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

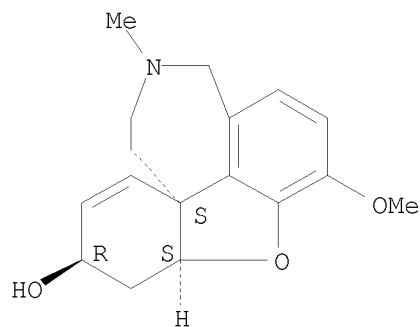
10/573,517



RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HBr

IT 41303-74-6 156040-03-8 199014-26-1  
366485-18-9 464189-56-8 464189-58-0  
464189-60-4

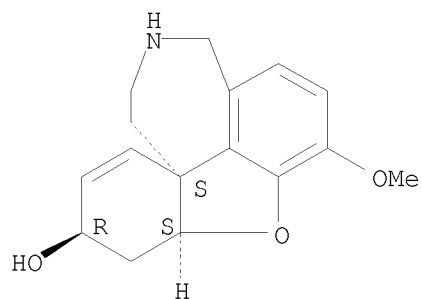
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(galantamine metabolism and excretion in rats, dogs, and humans to form)

RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

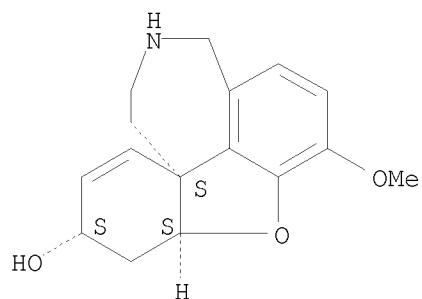
10/573,517



RN 156040-03-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10S,12aS)- (CA INDEX NAME)

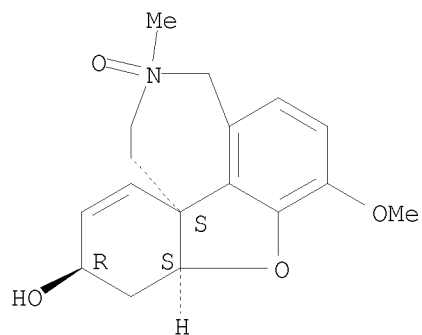
Absolute stereochemistry. Rotation (-).



RN 199014-26-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 11-oxide, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

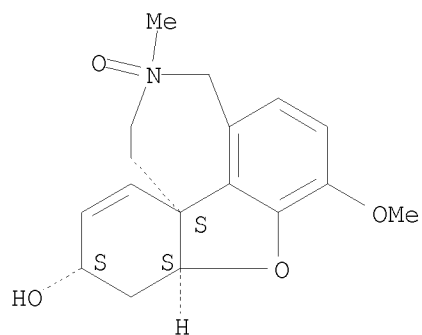


RN 366485-18-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 11-oxide, (4aS,6S,8aS)- (CA INDEX NAME)

10/573,517

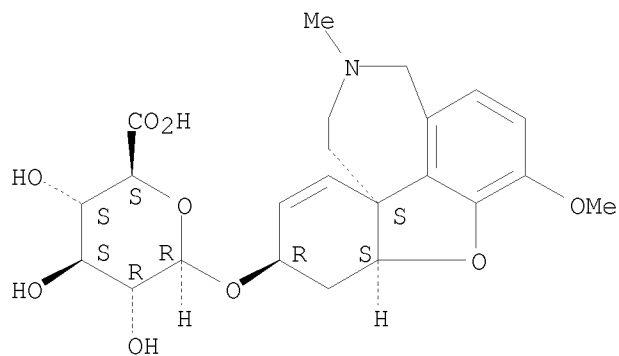
Absolute stereochemistry.



RN 464189-56-8 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl (CA INDEX NAME)

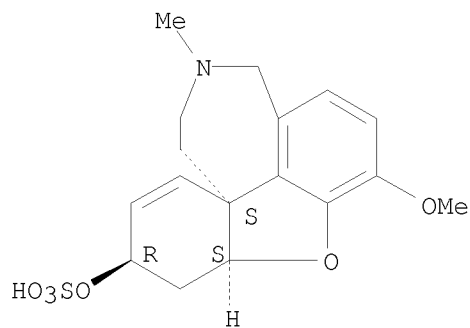
Absolute stereochemistry.



RN 464189-58-0 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 10-(hydrogen sulfate), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

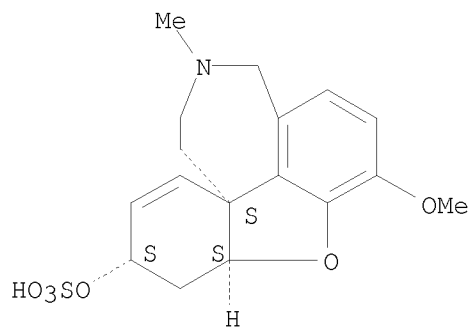


RN 464189-60-4 CAPLUS

10/573,517

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 10-(hydrogen sulfate), (8aS,10S,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

11

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 42 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:747793 CAPLUS

DOCUMENT NUMBER: 135:304054

TITLE: Preparation of galanthamine analogs for pharmaceutical

use as acetyl- and butyrylcholinesterase inhibitors

INVENTOR(S): Jordis, Ulrich; Froehlich, Johannes; Treu, Matthias;

Hirnschall, Manfred; Czollner, Laszlo; Kaelz, Beate;

Welzig, Stefan

PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria

SOURCE: PCT Int. Appl., 285 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

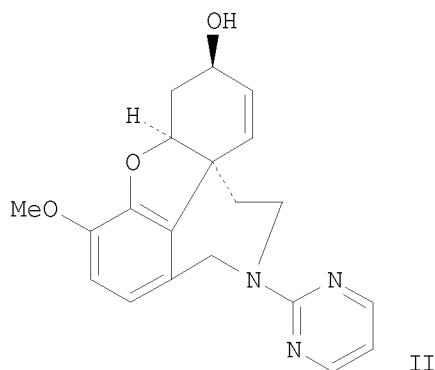
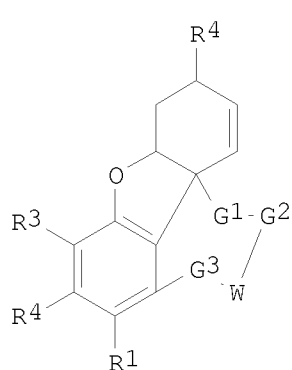
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074820	A1	20011011	WO 2001-AT82	20010322
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2368966	A1	20011011	CA 2001-2368966	20010322
EP 1181294	A1	20020227	EP 2001-914813	20010322
EP 1181294	B1	20040331		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2001005563	A	20020402	BR 2001-5563	20010322
CN 1380883	A	20021120	CN 2001-801342	20010322
HU 2002002233	A2	20021128	HU 2002-2233	20010322
HU 2002002233	A3	20041228		
JP 2003529602	T	20031007	JP 2001-572510	20010322
NZ 516302	A	20040227	NZ 2001-516302	20010322
AT 263171	T	20040415	AT 2001-914813	20010322
PT 1181294	T	20040730	PT 2001-914813	20010322
ES 2215885	T3	20041016	ES 2001-914813	20010322
RU 2241001	C2	20041127	RU 2001-135839	20010322
CN 1827621	A	20060906	CN 2006-10054791	20010322
AU 785385	B2	20070329	AU 2001-42085	20010322
SK 285909	B6	20071004	SK 2001-1702	20010322
IN 2001KN01225	A	20050311	IN 2001-KN1225	20011121
BG 106155	A	20020830	BG 2001-106155	20011128
BG 65134	B1	20070330		
KR 768245	B1	20071017	KR 2001-715244	20011128
MX 2001PA12275	A	20030624	MX 2001-PA12275	20011129
NO 2001005857	A	20020129	NO 2001-5857	20011130
US 20030199493	A1	20031023	US 2002-980025	20020318
US 7166588	B2	20070123		
HK 1045990	A1	20050128	HK 2002-106231	20020823
US 20070027138	A1	20070201	US 2006-478170	20060628
PRIORITY APPLN. INFO.:			AT 2000-546	A 20000331
			AT 2001-238	A 20010215

CN	2001-801342	A3	20010322
EP	2001-914813	A	20010322
WO	2001-AT82	W	20010322
US	2002-980025	A3	20020318

OTHER SOURCE(S):            MARPAT 135:304054  
GI



AB Galanthamine derivs. and analogs, such as I [R1, R2 = H, Cn, OH, SH, NO2, SO3H, PO3H, NH2, halogen, etc.; R3 = OH, OMe; R4 = OH, alkyloxy, alkenyloxy, alkynyloxy, cycloalkyloxy, aryloxy, etc.; G1, G2, G3 = CH2, (CH2)2, (CH2)3, CH(OH), etc.; W = CH2, NR5, etc.; R5 = alkyl, acyl, aryl, etc.], were prepared for therapeutic use as acetyl- and butyrylcholinesterase inhibitors. Thus, (±)-galanthamine derivative II was prepared in 80.8% yield by condensation of (±)-norgalanthamine with 2-chloropyrimidine using NaHCO3 in EtOH. The prepared galanthamine derivs. and analogs were tested for acetyl- and butyrylcholinesterase inhibiting activity.

IT 357-70-0P 365570-18-9P 365570-20-3P  
365570-22-5P 365570-25-8P 365570-29-2P  
365570-32-7P 365570-76-9P 365570-84-9P  
365571-13-7P 365571-15-9P 365571-16-0P  
365571-18-2P 365571-25-1P 365571-46-6P  
365571-73-9P 365571-77-3P 365571-78-4P  
365571-80-8P 365571-82-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of galanthamine analogs for pharmaceutical use as acetyl- and butyrylcholinesterase inhibitors)

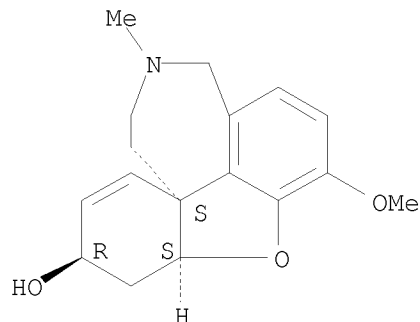
RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



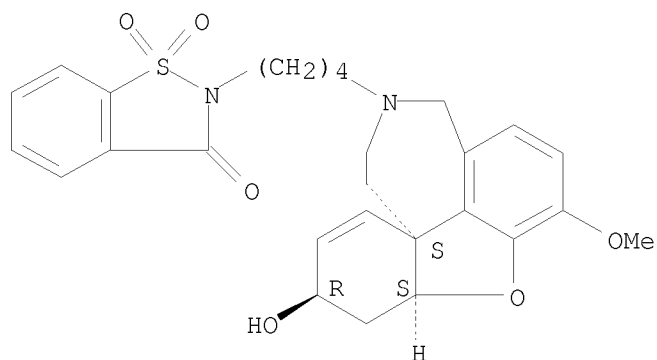
10/573,517



RN 365570-18-9 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]-, 1,1-dioxide (CA INDEX NAME)

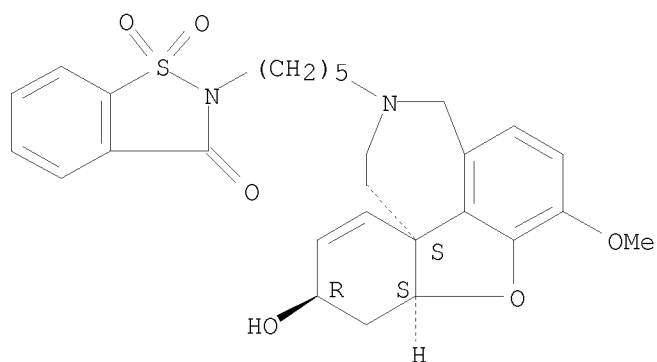
Absolute stereochemistry. Rotation (-).



RN 365570-20-3 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]-, 1,1-dioxide (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

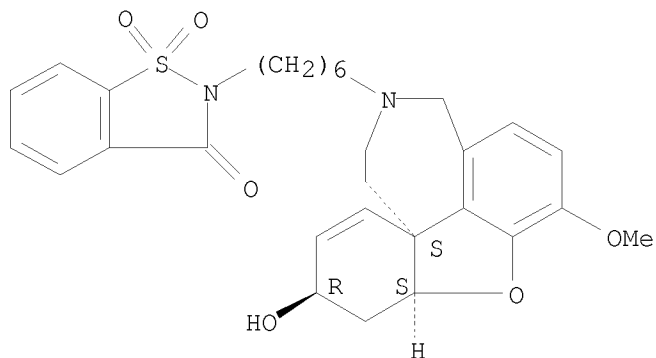


10/573,517

RN 365570-22-5 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[6-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]hexyl]-, 1,1-dioxide (CA INDEX NAME)

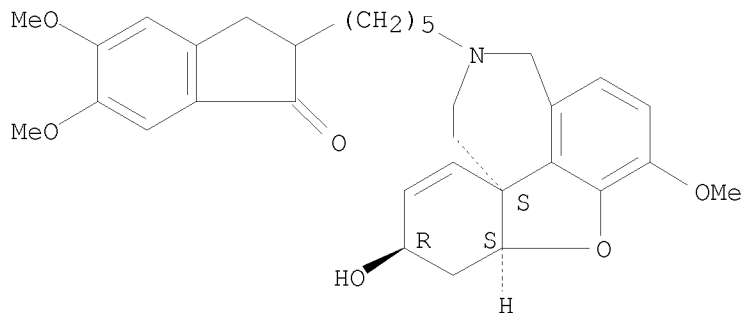
Absolute stereochemistry. Rotation (-).



RN 365570-25-8 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]- (CA INDEX NAME)

Absolute stereochemistry.

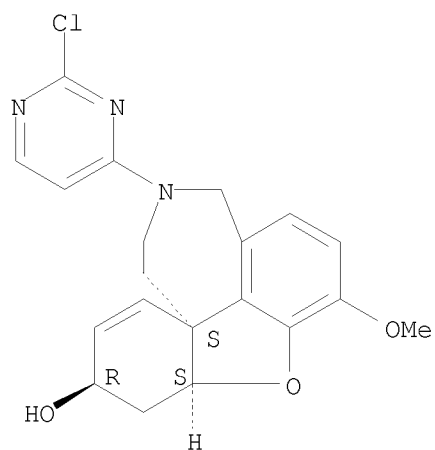


RN 365570-29-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(2-chloro-4-pyrimidinyl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

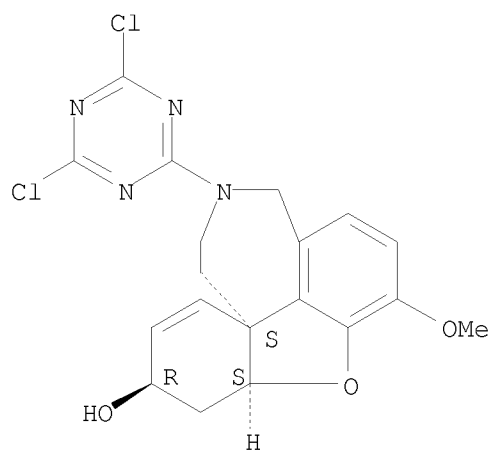
Relative stereochemistry.

10/573,517



RN 365570-32-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(4,6-dichloro-1,3,5-triazin-2-yl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

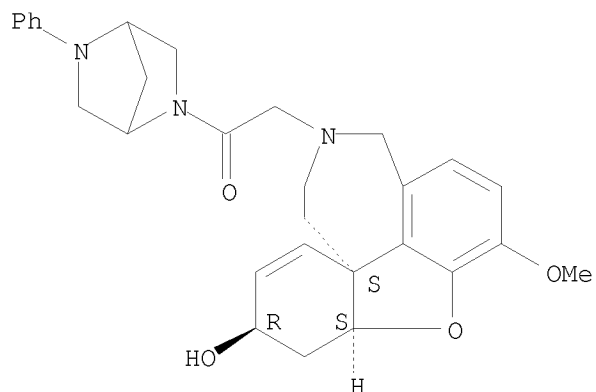
Relative stereochemistry.



RN 365570-76-9 CAPLUS  
CN Ethanone, 1-(5-phenyl-2,5-diazabicyclo[2.2.1]hept-2-yl)-2-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

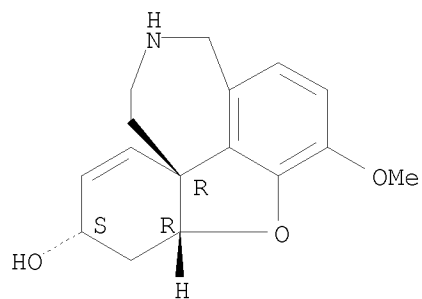
10/573,517



RN 365570-84-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)- (CA INDEX NAME)

Absolute stereochemistry.

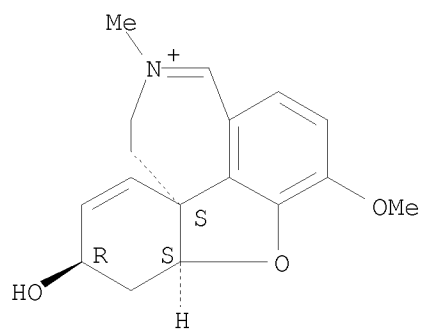


RN 365571-13-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10-tetrahydro-3-methoxy-11-methyl-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

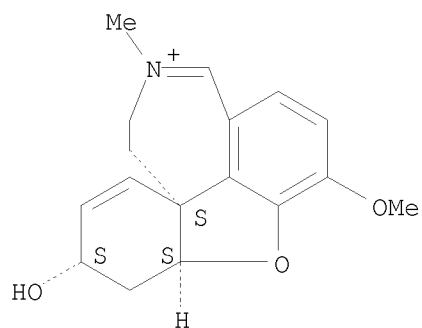
10/573,517



RN 365571-15-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1), (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

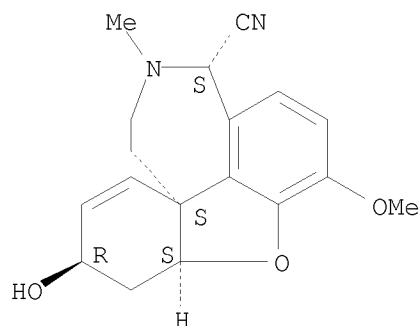


RN 365571-16-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-12-carbonitrile, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, (4aS,6R,8aS,12S)- (CA INDEX NAME)

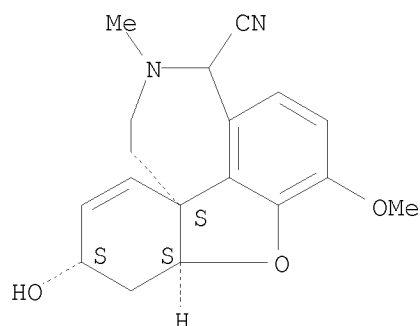
Absolute stereochemistry. Rotation (-).

10/573,517



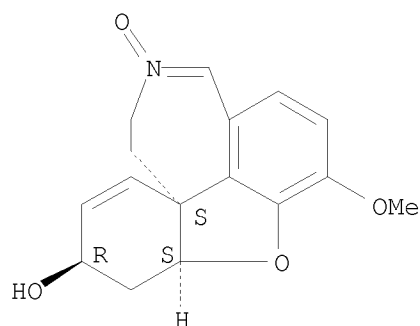
RN 365571-18-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-12-carbonitrile,  
4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, (4aS,6S,8aS)-  
(CA INDEX NAME)

Absolute stereochemistry.



RN 365571-25-1 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10-tetrahydro-3-methoxy-,  
11-oxide, (4aS,6R,8aS)- (CA INDEX NAME)

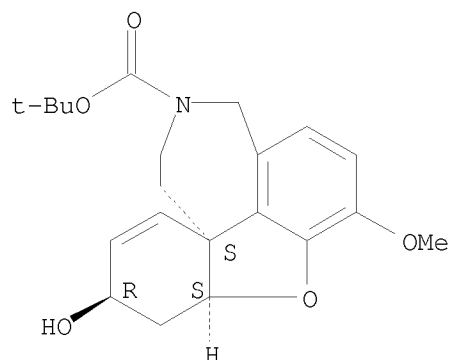
Absolute stereochemistry. Rotation (-).



RN 365571-46-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 1,1-dimethylethyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

10/573,517

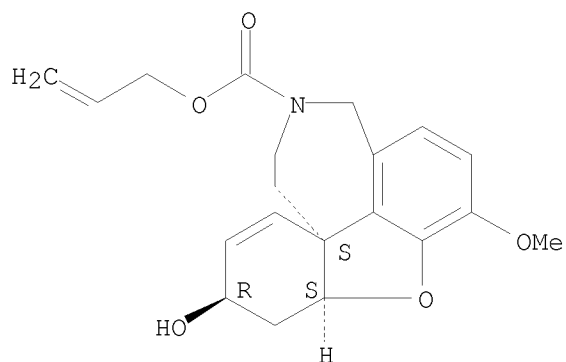
Absolute stereochemistry. Rotation (-).



RN 365571-73-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxylic acid,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, 2-propen-1-yl ester,  
(8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

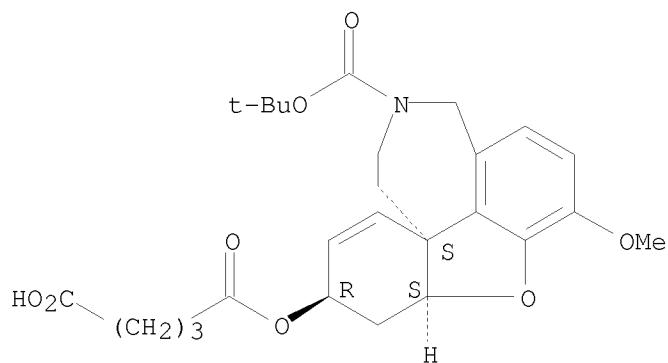


RN 365571-77-3 CAPLUS

CN Pentanedioic acid, 1-[(4aS,6R,8aS)-11-[(1,1-dimethylethoxy)carbonyl]-  
4a,5,9,10,11,12-hexahydro-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-  
yl] ester (CA INDEX NAME)

Absolute stereochemistry.

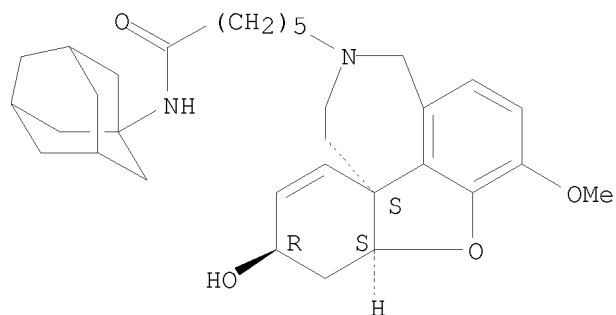
10/573,517



RN 365571-78-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-hexanamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl-,  
(8aS,10R,12aS)- (CA INDEX NAME)

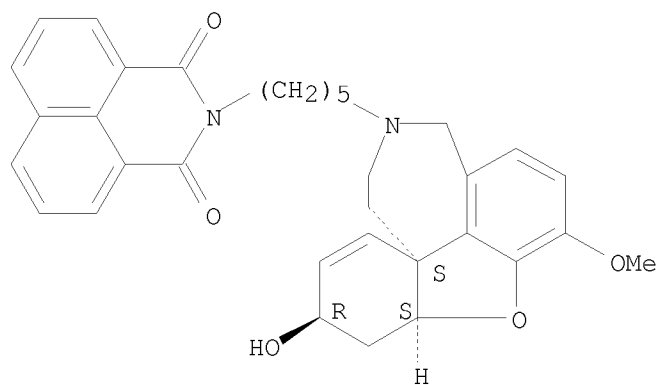
Absolute stereochemistry.



RN 365571-80-8 CAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[5-[(8aS,10R,12aS)-1,2,8a,9-  
tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-  
3(4H)-yl]pentyl]- (CA INDEX NAME)

Absolute stereochemistry.



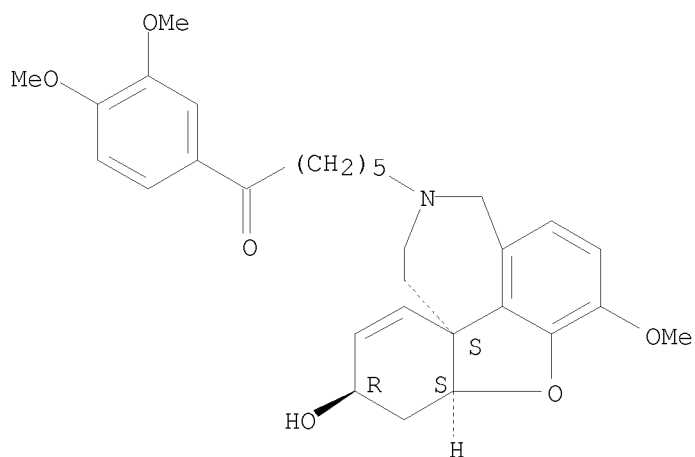


10/573,517

RN 365571-82-0 CAPLUS

CN 1-Hexanone, 1-(3,4-dimethoxyphenyl)-6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.



IT 273759-74-3P 331824-90-9P 365570-19-0P  
365570-21-4P 365570-23-6P 365570-24-7P  
365570-26-9P 365570-27-0P 365570-28-1P  
365570-30-5P 365570-31-6P 365570-33-8P  
365570-34-9P 365570-35-0P 365570-36-1P  
365570-37-2P 365570-38-3P 365570-39-4P  
365570-40-7P 365570-41-8P 365570-42-9P  
365570-43-0P 365570-44-1P 365570-45-2P  
365570-46-3P 365570-47-4P 365570-48-5P  
365570-49-6P 365570-50-9P 365570-51-0P  
365570-52-1P 365570-54-3P 365570-55-4P  
365570-56-5P 365570-57-6P 365570-58-7P  
365570-59-8P 365570-60-1P 365570-61-2P  
365570-62-3P 365570-63-4P 365570-64-5P  
365570-65-6P 365570-66-7P 365570-67-8P  
365570-68-9P 365570-69-0P 365570-70-3P  
365570-71-4P 365570-72-5P 365570-73-6P  
365570-74-7P 365570-75-8P 365570-77-0P  
365570-79-2P 365570-80-5P 365570-81-6P  
365570-82-7P 365570-83-8P 365570-85-0P  
365570-86-1P 365570-87-2P 365571-20-6P  
365571-21-7P 365571-23-9P 365571-32-0P  
365571-34-2P 365571-36-4P 365571-37-5P  
365571-38-6P 365571-39-7P 365571-40-0P  
365571-41-1P 365571-42-2P 365571-43-3P  
365571-44-4P 365571-47-7P 365571-48-8P  
365571-50-2P 365571-54-6P 365571-57-9P  
365571-58-0P 365571-59-1P 365571-60-4P  
365571-61-5P 365571-62-6P 365571-63-7P  
365571-64-8P 365571-65-9P 365571-66-0P  
365571-67-1P 365571-68-2P 365571-69-3P

10/573,517

365571-70-6P 365571-71-7P 365571-72-8P  
365571-74-0P 365571-75-1P 365571-76-2P  
365571-79-5P 365571-81-9P 365571-83-1P  
365571-86-4P 365571-90-0P 365571-94-4P  
365571-95-5P 365574-25-0P 366485-18-9P  
366485-20-3P 366485-22-5P 849355-37-9P

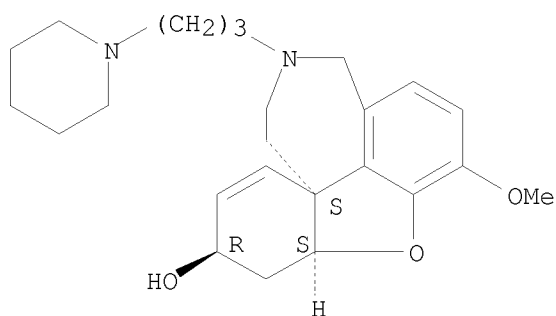
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of galanthamine analogs for pharmaceutical use as acetyl- and butyrylcholinesterase inhibitors)

RN 273759-74-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, hydrochloride (1:2), (4aS,6R,8aS)-(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

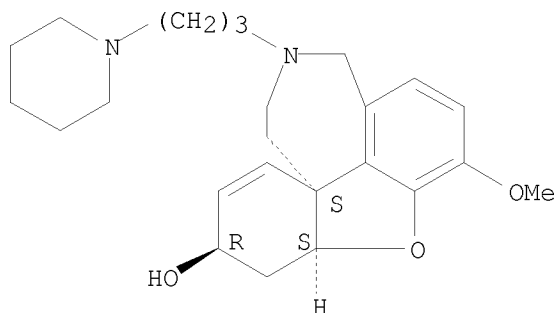


● 2 HCl

RN 331824-90-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 365570-19-0 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]butyl]-,

10/573,517

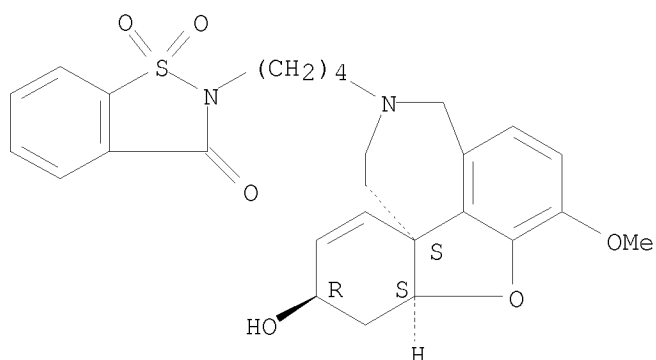
1,1-dioxide, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365570-18-9

CMF C27 H30 N2 O6 S

Absolute stereochemistry. Rotation (-).

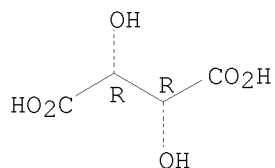


CM 2

CRN 87-69-4

CMF C4 H6 O6

Absolute stereochemistry.



RN 365570-21-4 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]-, 1,1-dioxide, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

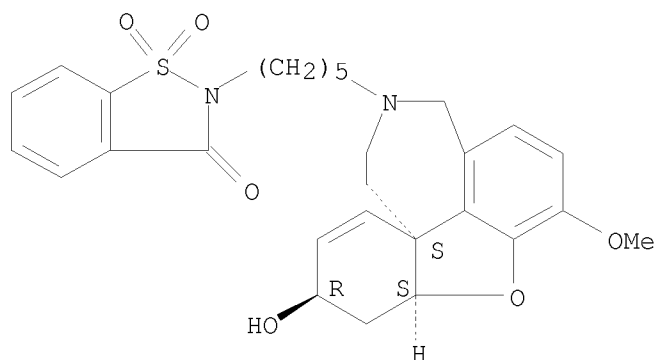
CM 1

CRN 365570-20-3

CMF C28 H32 N2 O6 S

Absolute stereochemistry. Rotation (-).

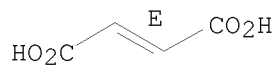
10/573,517



CM 2

CRN 110-17-8  
CMF C4 H4 O4

Double bond geometry as shown.

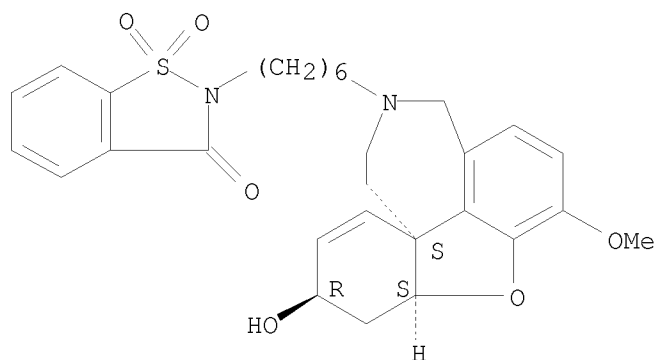


RN 365570-23-6 CAPLUS  
CN 1,2-Benzisothiazol-3(2H)-one, 2-[6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]-, 1,1-dioxide, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365570-22-5  
CMF C29 H34 N2 O6 S

Absolute stereochemistry. Rotation (-).

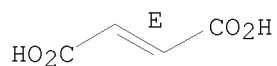


CM 2

10/573,517

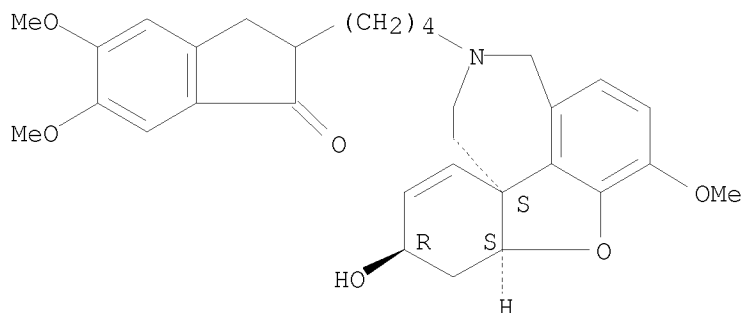
CRN 110-17-8  
CMF C4 H4 O4

Double bond geometry as shown.



RN 365570-24-7 CAPLUS  
CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

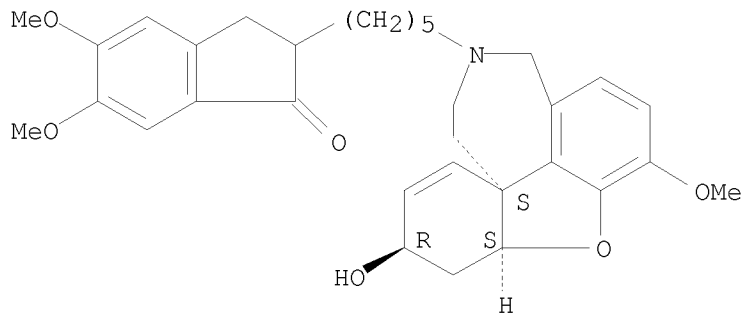


RN 365570-26-9 CAPLUS  
CN 1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365570-25-8  
CMF C32 H39 N O6

Absolute stereochemistry.

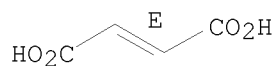


CM 2

10/573,517

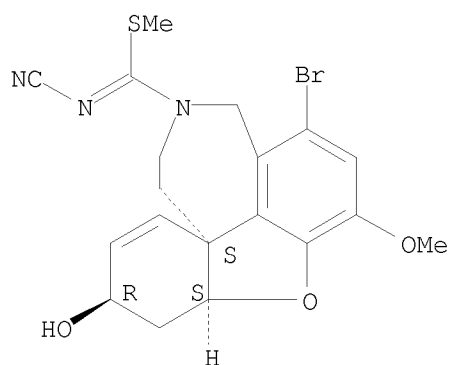
CRN 110-17-8  
CMF C4 H4 O4

Double bond geometry as shown.



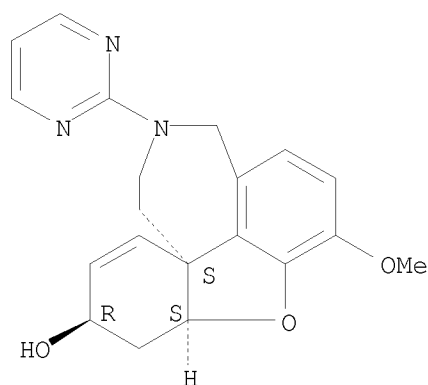
RN 365570-27-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboximidothioic acid,  
1-bromo-N-cyano-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, methyl ester,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.  
Double bond geometry unknown.



RN 365570-28-1 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-(2-pyrimidinyl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

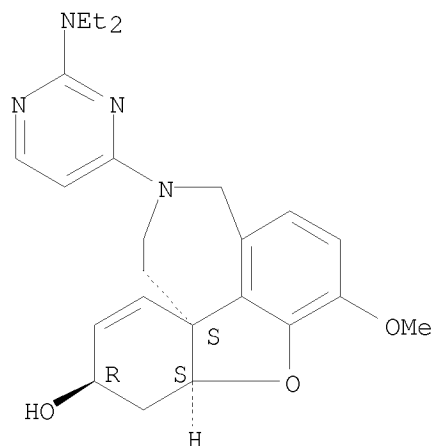


RN 365570-30-5 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 2-[2-(diethylamino)-4-

10/573,517

pyrimidinyl]-1,2,3,4,8,8a-hexahydro-10-methoxy-, (4aR,7S,8aR)-rel- (CA INDEX NAME)

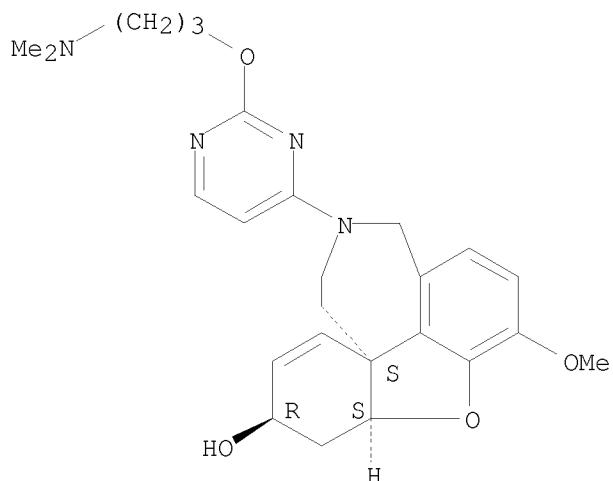
Relative stereochemistry.



RN 365570-31-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[2-[3-(dimethylamino)propoxy]-4-pyrimidinyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

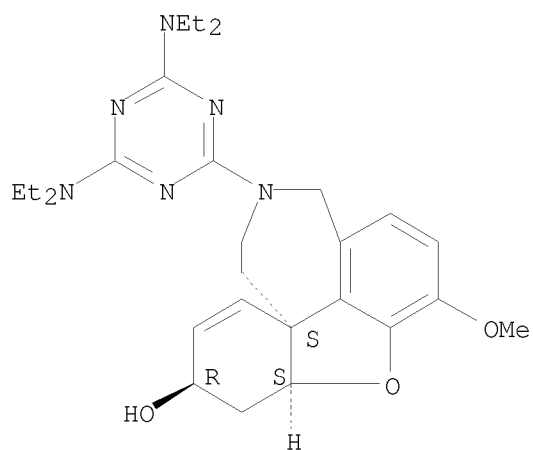


RN 365570-33-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[4,6-bis(diethylamino)-1,3,5-triazin-2-yl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

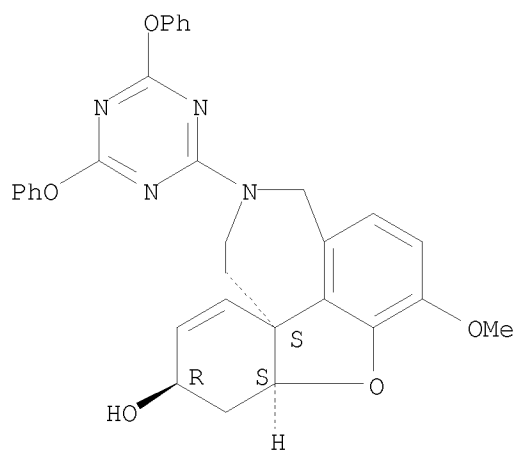
Relative stereochemistry.

10/573,517



RN 365570-34-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(4,6-diphenoxy-1,3,5-triazin-2-yl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

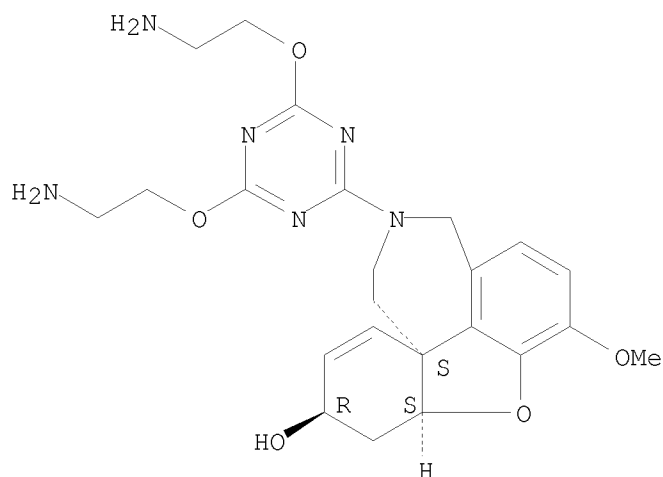


RN 365570-35-0 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[4,6-bis(2-aminoethoxy)-1,3,5-triazin-2-yl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



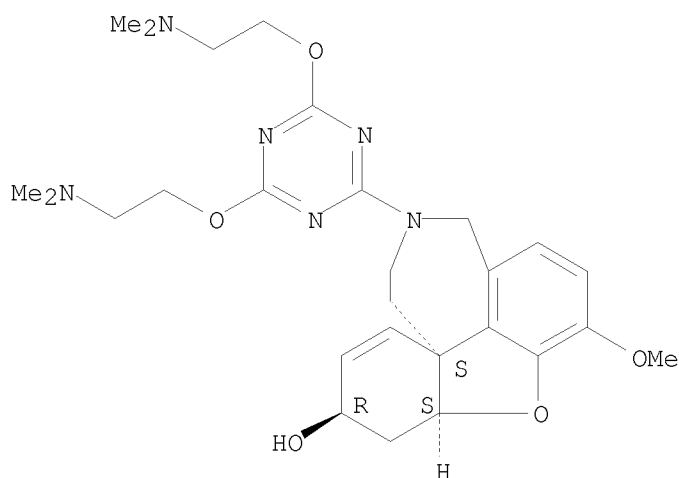
10/573,517



RN 365570-36-1 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepin-7-ol, 2-[4,6-bis[2-(dimethylamino)ethoxy]-1,3,5-triazin-2-yl]-1,2,3,4,8,8a-hexahydro-10-methoxy-, (4aR,7S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

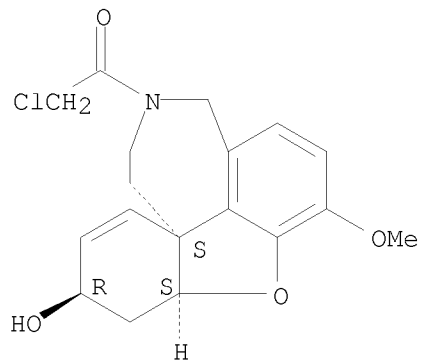


RN 365570-37-2 CAPLUS

CN Ethanone, 2-chloro-1-[(4aR,6S,8aR)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

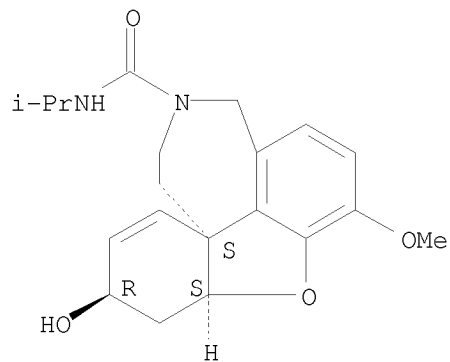
10/573,517



RN 365570-38-3 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-,  
(8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

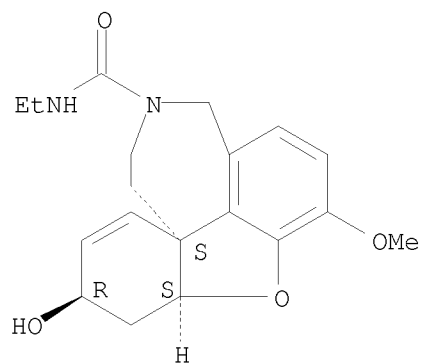


RN 365570-39-4 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carboxamide,  
N-ethyl-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aR,7S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.

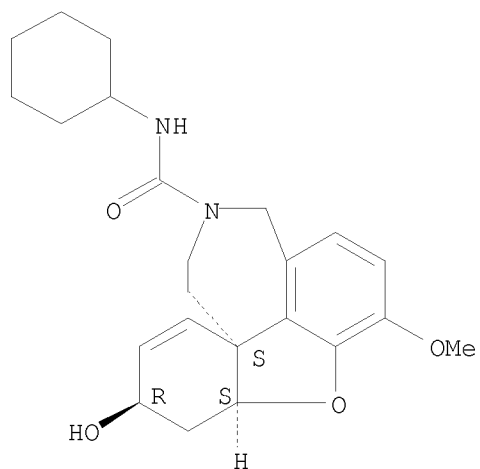
10/573,517



RN 365570-40-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-cyclohexyl-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel-  
(CA INDEX NAME)

Relative stereochemistry.

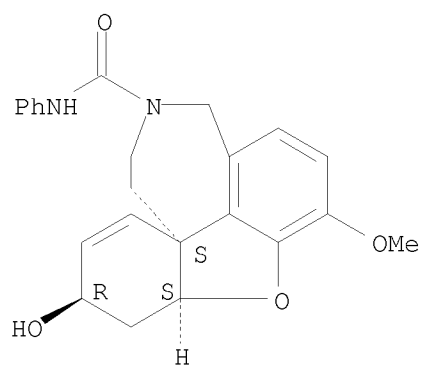


RN 365570-41-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-phenyl-, (4aR,6S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.

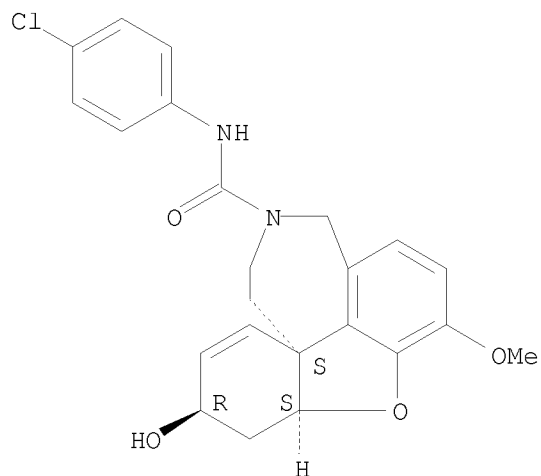
10/573,517



RN 365570-42-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-(4-chlorophenyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

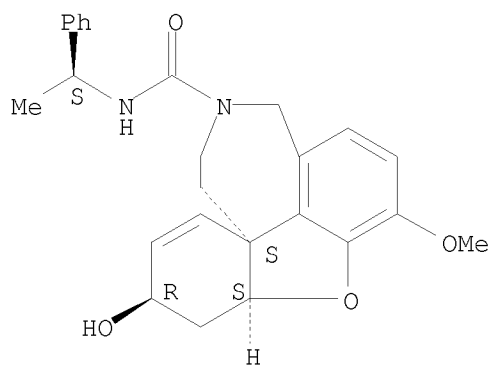


RN 365570-43-0 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carboxamide,  
3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-N-[(1S)-1-phenylethyl]-,  
(4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

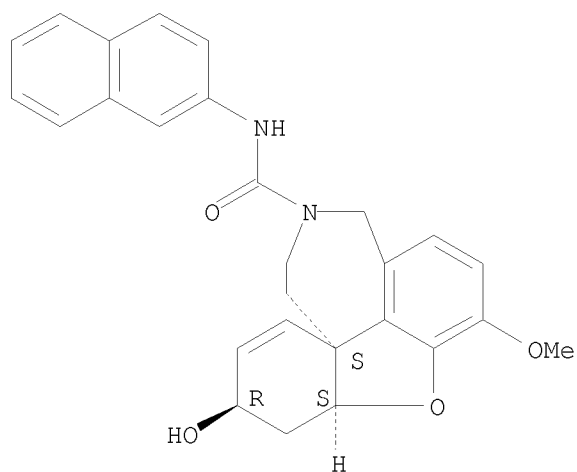
10/573,517



RN 365570-44-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-2-naphthalenyl-,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

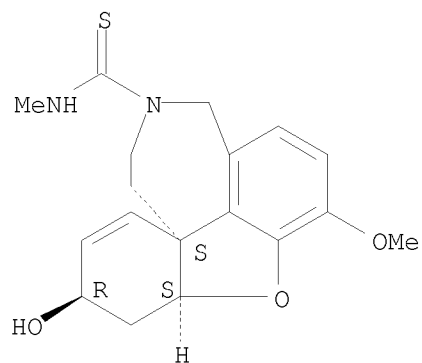


RN 365570-45-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-methyl-, (4aR,6S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.

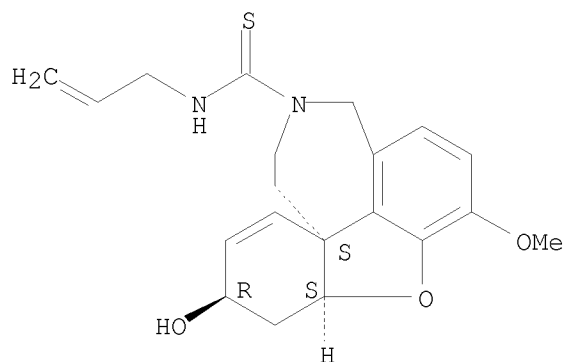
10/573,517



RN 365570-46-3 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carbothioamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-2-propen-1-yl-,  
(8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



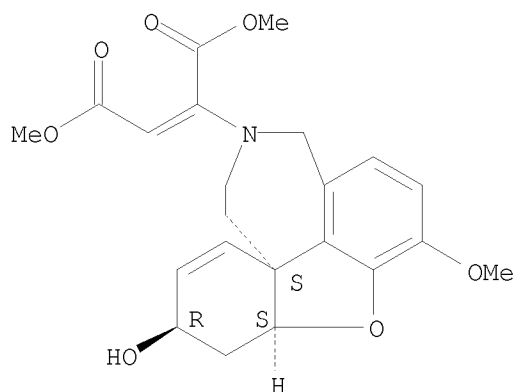
RN 365570-47-4 CAPLUS

CN 2-Butenedioic acid, 2-[(4aR,6S,8aR)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, 1,4-dimethyl ester, rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.

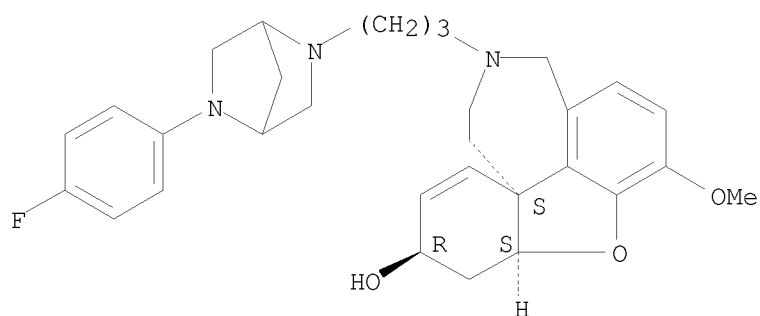
10/573,517



RN 365570-48-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[3-[5-(4-fluorophenyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]propyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

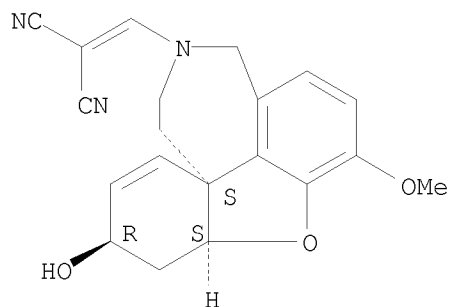
Relative stereochemistry.



RN 365570-49-6 CAPLUS

CN Propanedinitrile, 2-[[ (8aR,10S,12aR)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]methylene]-, rel- (CA INDEX NAME)

Relative stereochemistry.

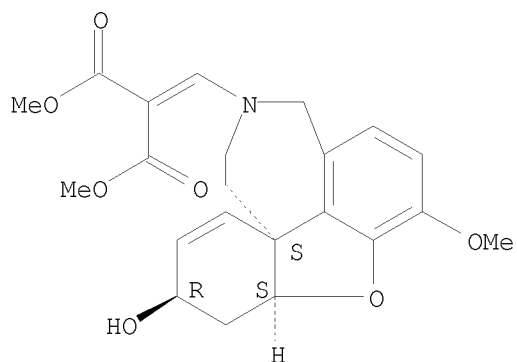


10/573,517

RN 365570-50-9 CAPLUS

CN Propanedioic acid, 2-[[ (4aR,6S,8aR)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]methylene]-, 1,3-dimethyl ester, rel- (CA INDEX NAME)

Relative stereochemistry.

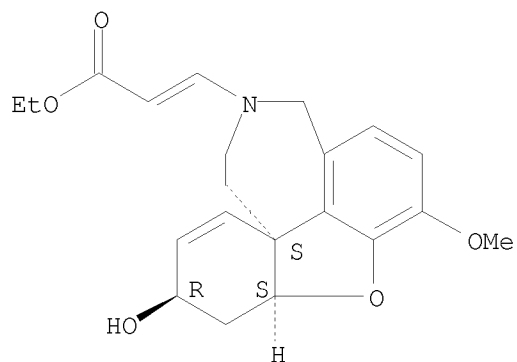


RN 365570-51-0 CAPLUS

CN 2-Propenoic acid, 3-[(4aR,6S,8aR)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, ethyl ester, rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.



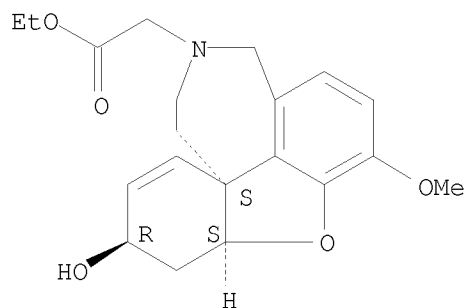
RN 365570-52-1 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-acetic acid, 1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, ethyl ester, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



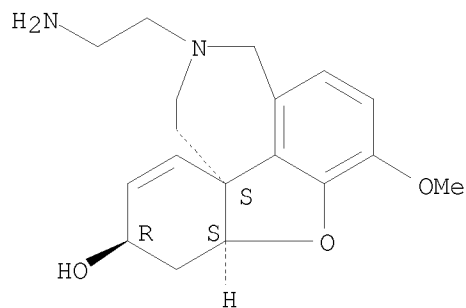
10/573,517



RN 365570-54-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(2-aminoethyl)-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

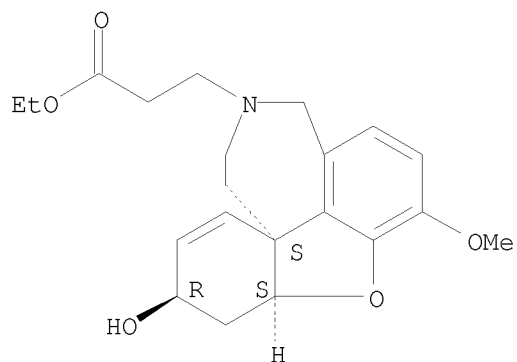
Absolute stereochemistry. Rotation (-).



RN 365570-55-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, ethyl ester, (4aR,6S,8aR)-rel-  
(CA INDEX NAME)

Relative stereochemistry.



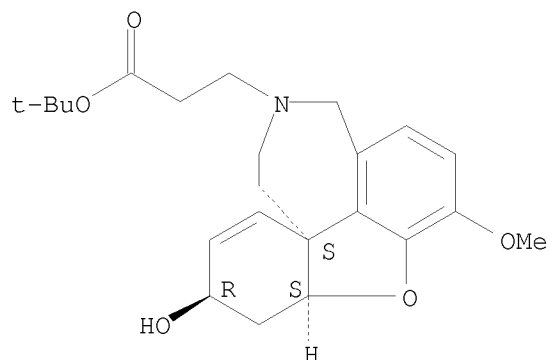
RN 365570-56-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid,

10/573,517

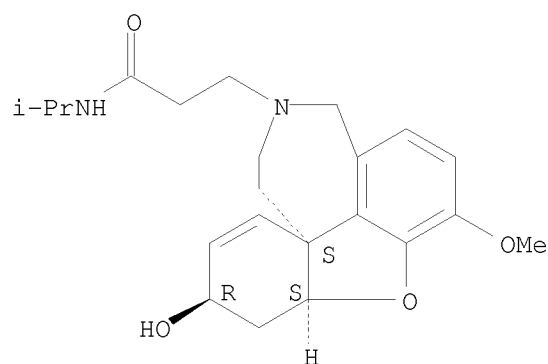
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 1,1-dimethylethyl ester,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 365570-57-6 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-propanamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-,  
(8aR,10S,12aR)-rel- (CA INDEX NAME)

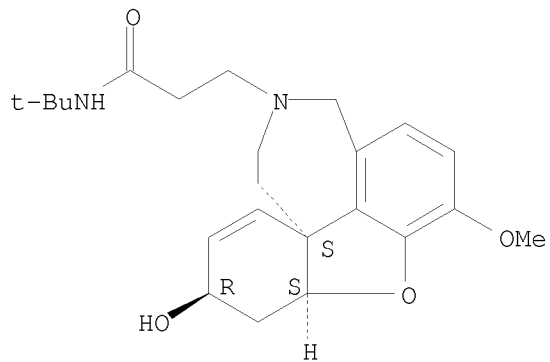
Relative stereochemistry.



RN 365570-58-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanamide,  
N-(1,1-dimethylethyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

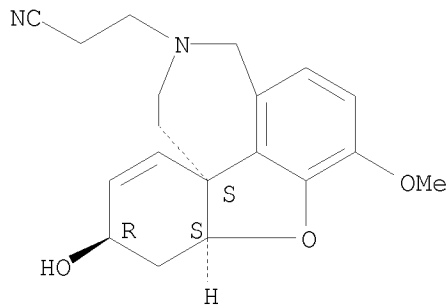
10/573,517



RN 365570-59-8 CAPLUS

CN	6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanenitrile, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (NAME)	(CA INDEX
----	---	-----------

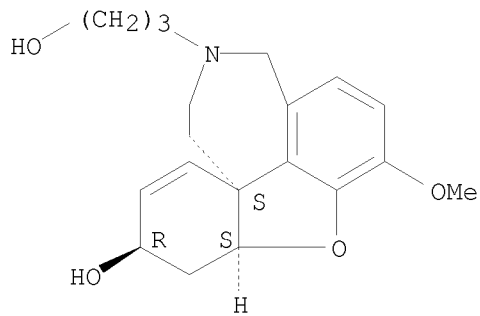
Relative stereochemistry.



RN 365570-60-1 CAPLUS

CN	6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanol, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel-	(CA INDEX NAME)
----	--	-----------------

Relative stereochemistry.

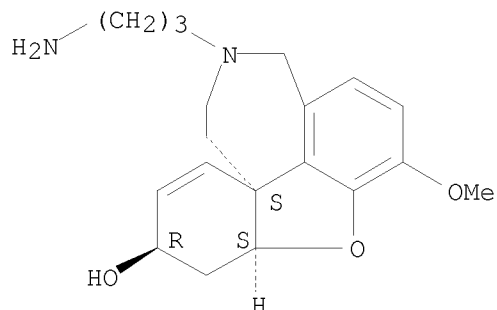


RN 365570-61-2 CAPLUS

10/573,517

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(3-aminopropyl)-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

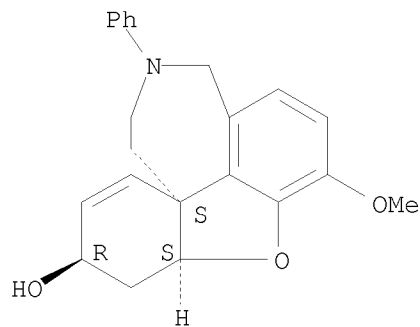
Relative stereochemistry.



RN 365570-62-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-phenyl-, (4aS,6R,8aS)- (CA INDEX NAME)

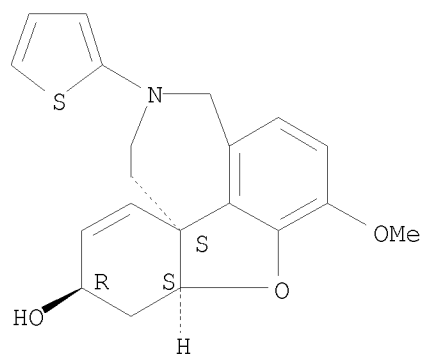
Absolute stereochemistry. Rotation (-).



RN 365570-63-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-(2-thienyl)-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

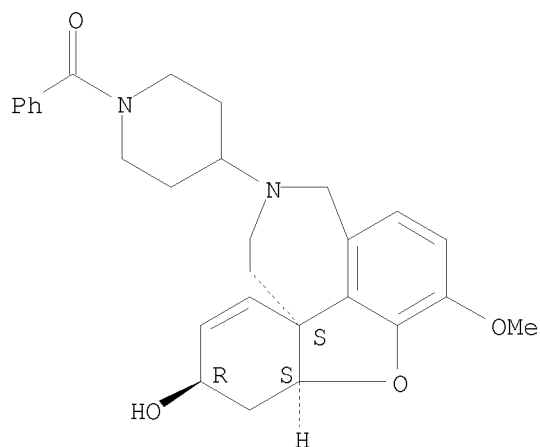


10/573,517

RN 365570-64-5 CAPLUS

CN Methanone, phenyl[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-1-piperidinyl]- (CA INDEX NAME)

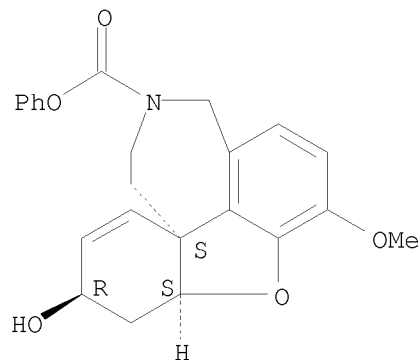
Absolute stereochemistry. Rotation (-).



RN 365570-65-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, phenyl ester, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

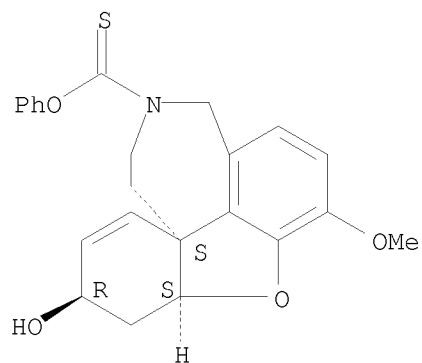


RN 365570-66-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioic acid, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, O-phenyl ester, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

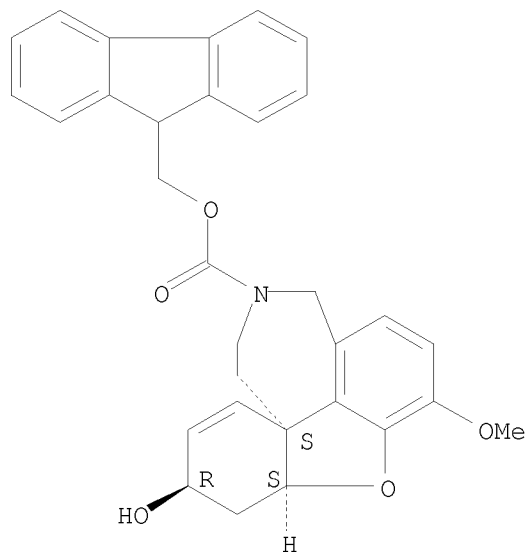
10/573,517



RN 365570-67-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 9H-fluoren-9-ylmethyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

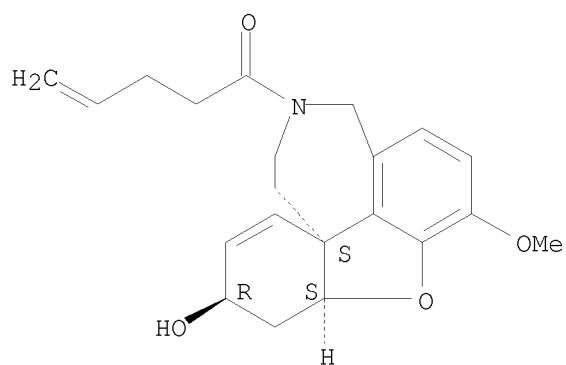


RN 365570-68-9 CAPLUS

CN 4-Penten-1-one, 1-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-  
10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

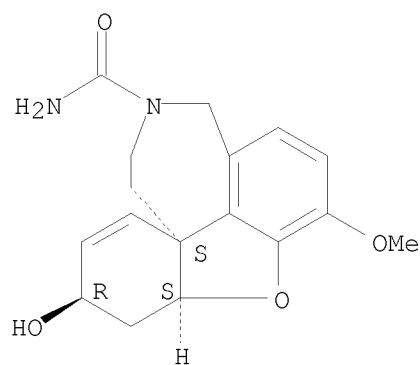
10/573,517



RN 365570-69-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

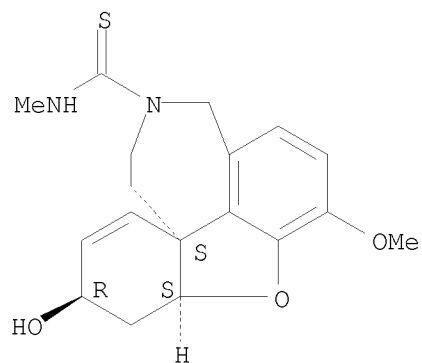


RN 365570-70-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carbothioamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-methyl-, (4aS,6R,8aS)- (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (-).

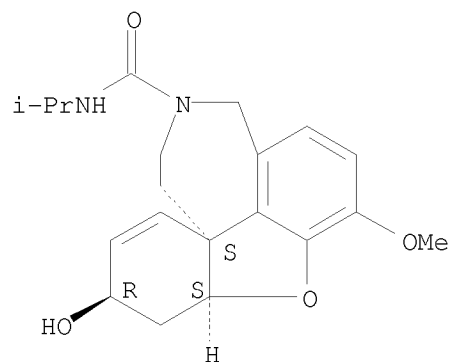
10/573,517



RN 365570-71-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-,  
(8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



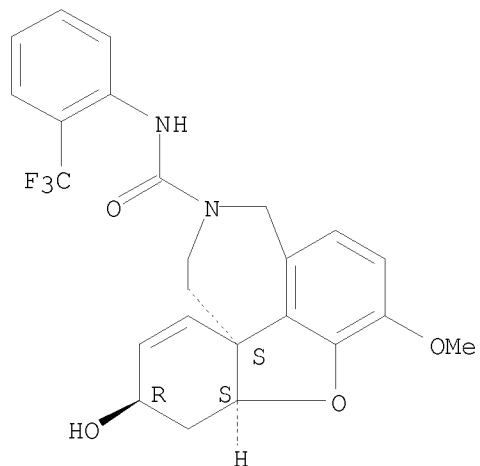
RN 365570-72-5 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-[2-(trifluoromethyl)phenyl]-,  
(8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

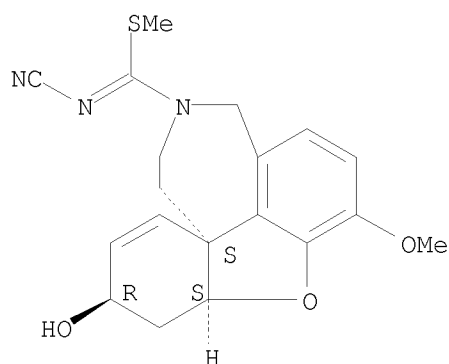


10/573,517



RN 365570-73-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboximidothioic acid,  
N-cyano-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, methyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

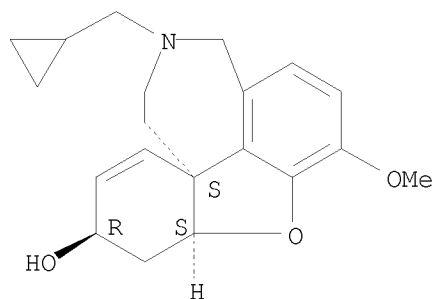
Absolute stereochemistry.  
Double bond geometry unknown.



RN 365570-74-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(cyclopropylmethyl)-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

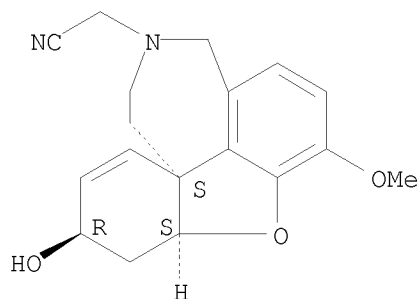
Absolute stereochemistry. Rotation (-).

10/573,517



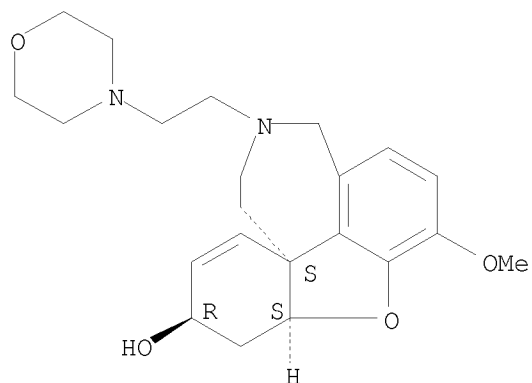
RN 365570-75-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetonitrile,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 365570-77-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

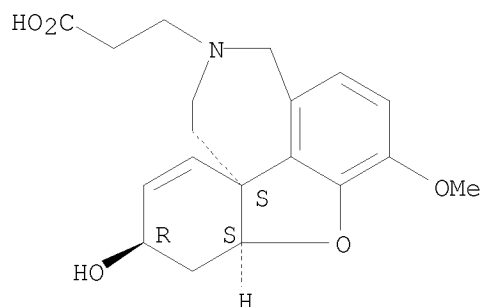


RN 365570-79-2 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-propanoic acid,

10/573,517

3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aS,7R,8aS)- (CA INDEX NAME)

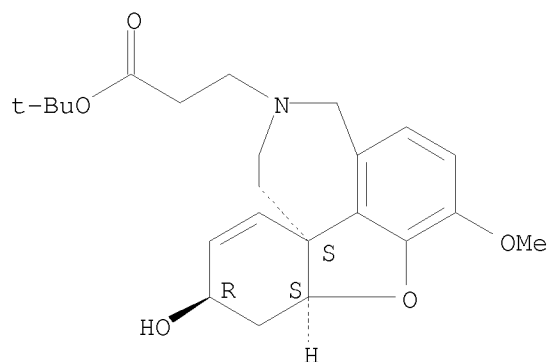
Absolute stereochemistry. Rotation (-).



RN 365570-80-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, 1,1-dimethylethyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

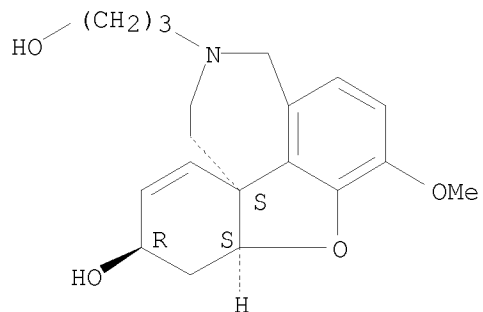
Absolute stereochemistry. Rotation (-).



RN 365570-81-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanol,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

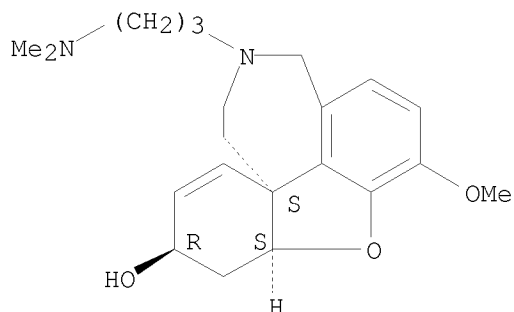


10/573,517

RN 365570-82-7 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3-(dimethylamino)propyl]-  
1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

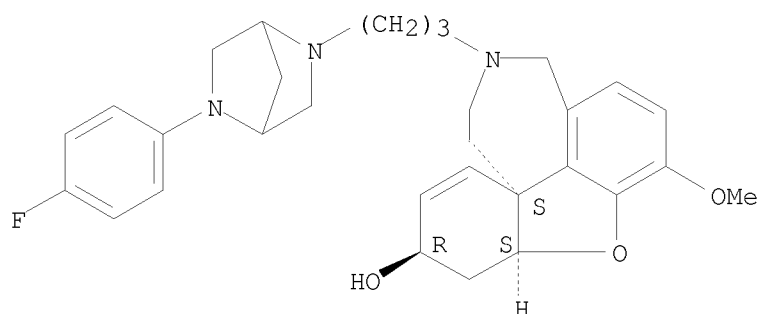
Absolute stereochemistry. Rotation (-).



RN 365570-83-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-[3-[5-(4-fluorophenyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]propyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

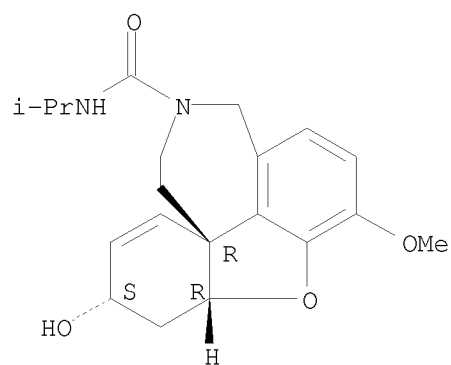


RN 365570-85-0 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxamide,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N-(1-methylethyl)-,  
(8aR,10S,12aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

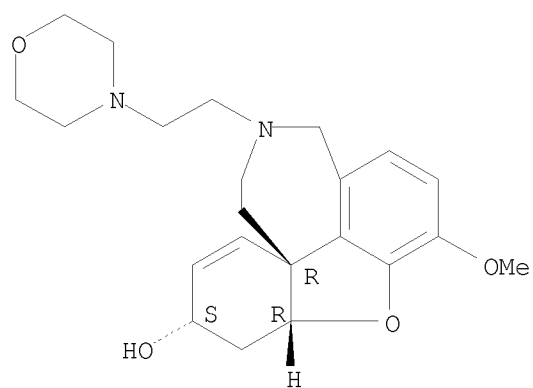
10/573,517



RN 365570-86-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aR,6S,8aR)- (CA INDEX NAME)

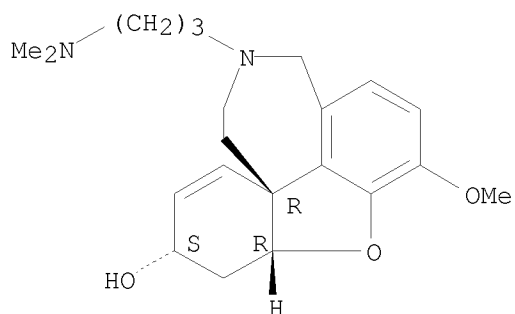
Absolute stereochemistry.



RN 365570-87-2 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3-[3-(dimethylamino)propyl]-1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aR,10S,12aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

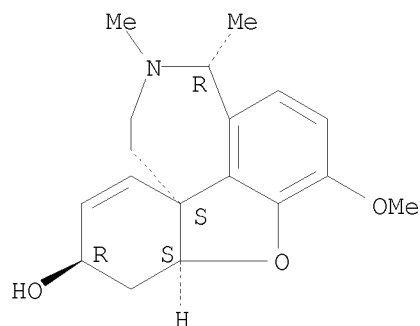


10/573,517

RN 365571-20-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11,12-dimethyl-, (4aS,6R,8aS,12R)- (CA INDEX NAME)

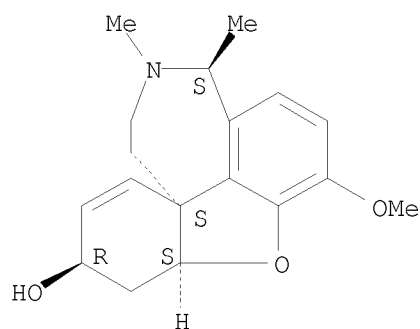
Absolute stereochemistry. Rotation (-).



RN 365571-21-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11,12-dimethyl-, (4aS,6R,8aS,12S)- (CA INDEX NAME)

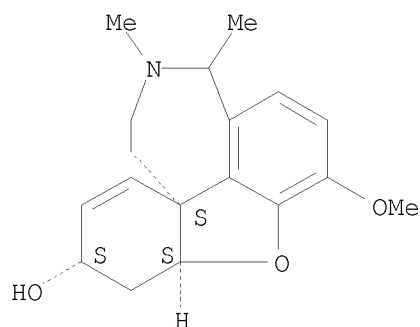
Absolute stereochemistry. Rotation (-).



RN 365571-23-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11,12-dimethyl-, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

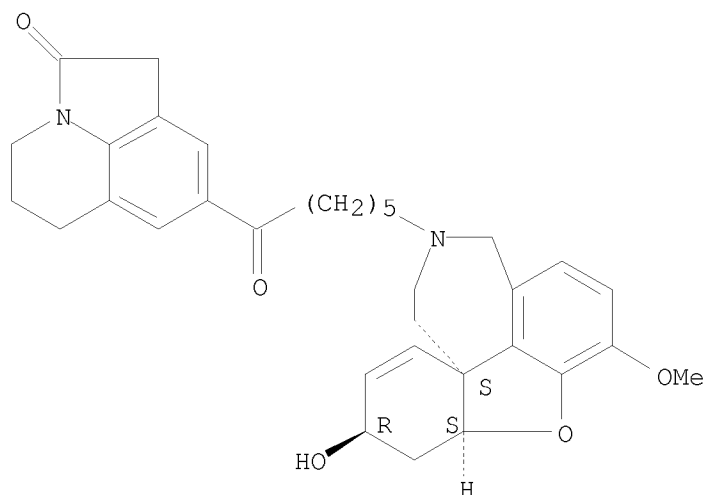


10/573,517

RN 365571-32-0 CAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-2(1H)-one, 5,6-dihydro-8-[1-oxo-6-  
[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-  
ef][2]benzazepin-11(12H)-yl]hexyl]- (CA INDEX NAME)

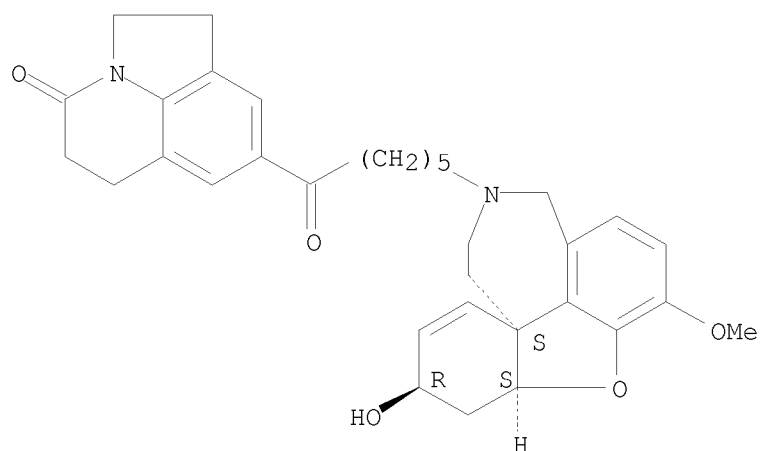
Absolute stereochemistry.



RN 365571-34-2 CAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-4-one, 1,2,5,6-tetrahydro-8-[1-oxo-6-  
[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-  
ef][2]benzazepin-11(12H)-yl]hexyl]- (CA INDEX NAME)

Absolute stereochemistry.

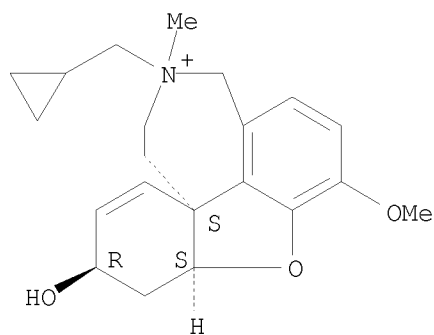


RN 365571-36-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-(cyclopropylmethyl)-  
4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1),  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

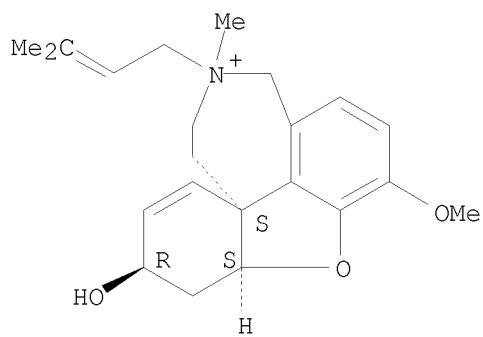
10/573,517



● Br<sup>-</sup>

RN 365571-37-5 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-3-(3-methyl-2-buten-1-yl)-, bromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



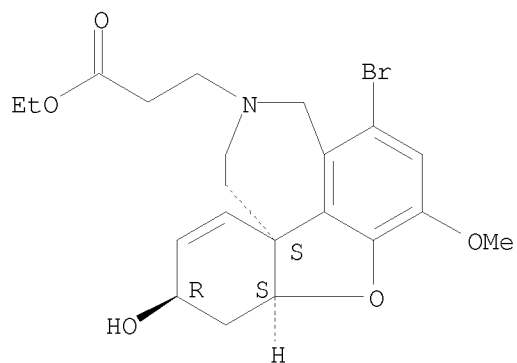
● Br<sup>-</sup>

RN 365571-38-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanoic acid, 1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, ethyl ester, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



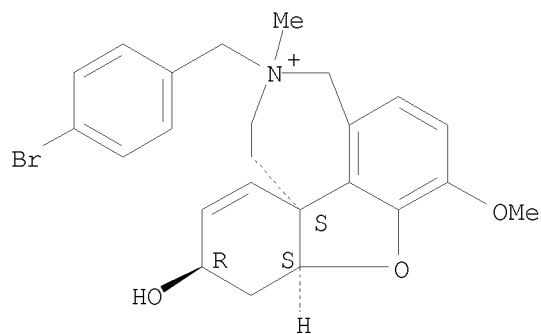
10/573,517



RN 365571-39-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-[(4-bromophenyl)methyl]-  
4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-, bromide (1:1),  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



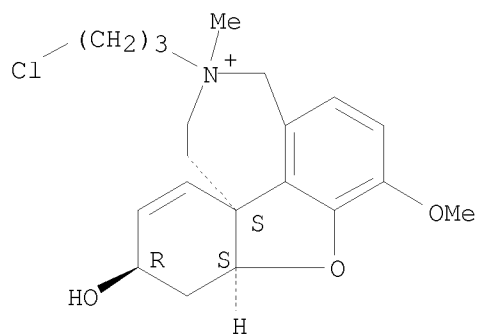
● Br<sup>-</sup>

RN 365571-40-0 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 2-(3-chloropropyl)-1,2,3,4,8,8a-  
hexahydro-7-hydroxy-10-methoxy-2-methyl-, bromide (1:1), (4aS,7R,8aS)-  
(CA INDEX NAME)

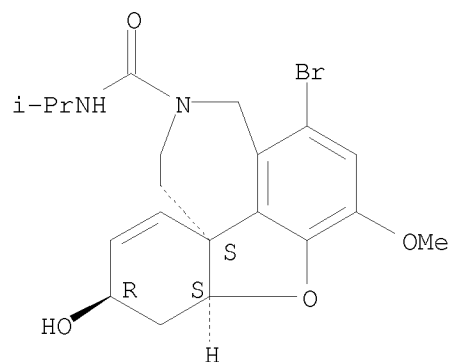
Absolute stereochemistry.

10/573,517



RN 365571-41-1 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-(1-methylethyl)-,  
(4aR,6S,8aR)-rel- (CA INDEX NAME)

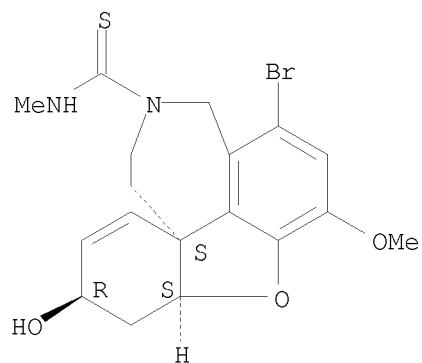
Relative stereochemistry.



RN 365571-42-2 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carbothioamide,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-N-methyl-,  
(4aR,7S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

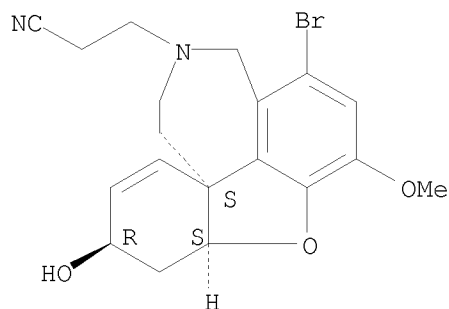
10/573,517



RN 365571-43-3 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-propanenitrile,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aR,7S,8aR)-rel- (CA  
INDEX NAME)

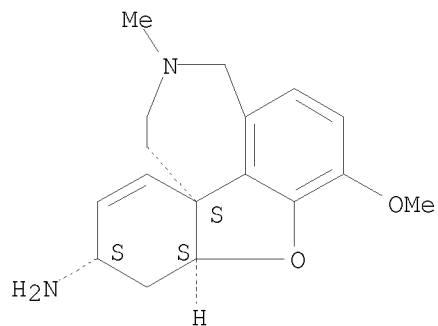
Relative stereochemistry.



RN 365571-44-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-amine, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



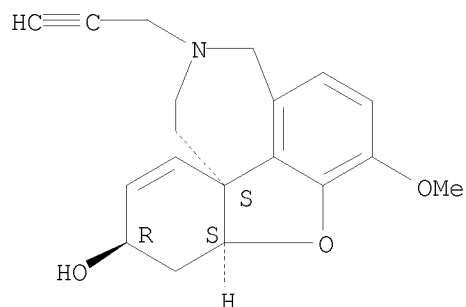
RN 365571-47-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-

10/573,517

methoxy-11-(2-propyn-1-yl)-, (4aS,6R,8aS)- (CA INDEX NAME)

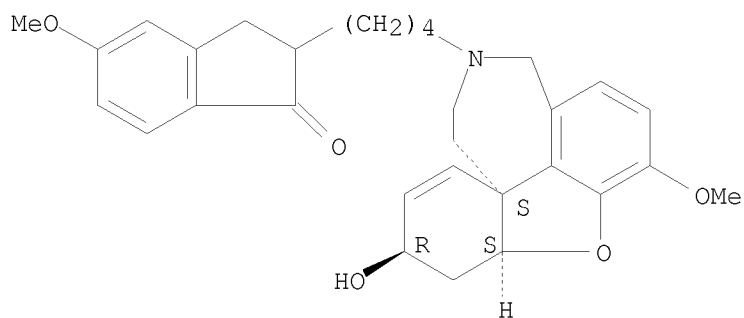
Absolute stereochemistry. Rotation (-).



RN 365571-48-8 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-5-methoxy-2-[4-[(8aR,10S,12aR)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



RN 365571-50-2 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-5-methoxy-2-[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]butyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

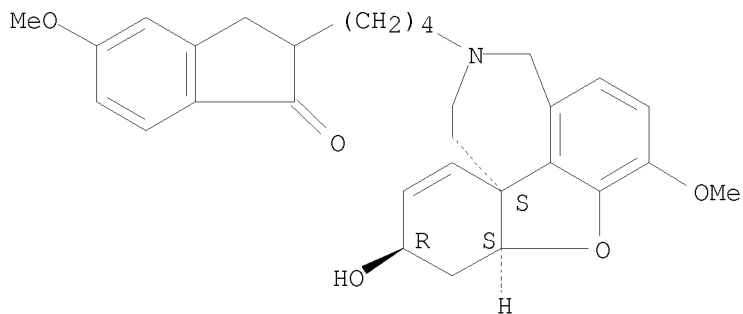
CM 1

CRN 365571-49-9

CMF C30 H35 N O5

Absolute stereochemistry.

10/573,517

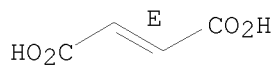


CM 2

CRN 110-17-8

CMF C4 H4 O4

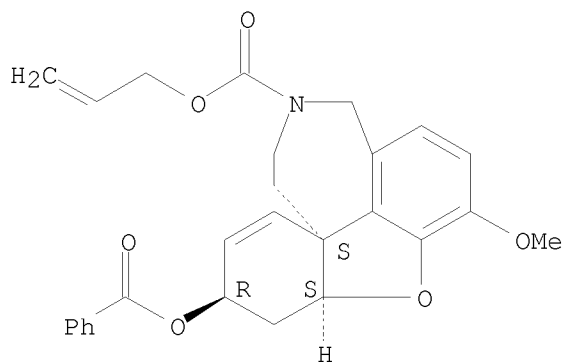
Double bond geometry as shown.



RN 365571-54-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxylic acid,  
10-(benzoyloxy)-1,2,8a,9-tetrahydro-7-methoxy-, 2-propen-1-yl ester,  
(8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

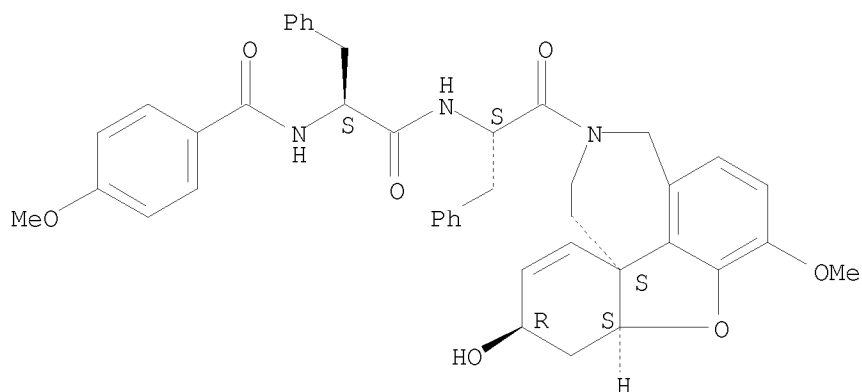


RN 365571-57-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[N-(4-methoxybenzoyl)-L-phenylalanyl-L-phenylalanyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

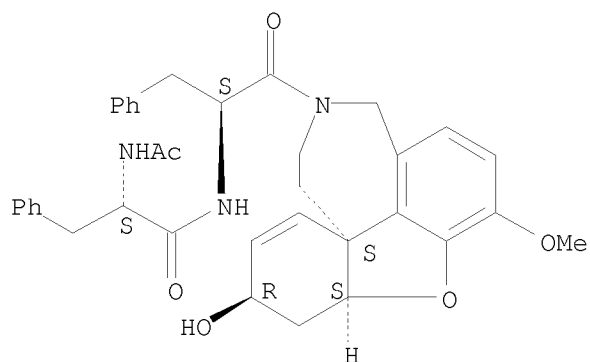
10/573,517



RN 365571-58-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(N-acetyl-L-phenylalanyl-L-phenylalanyl)-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

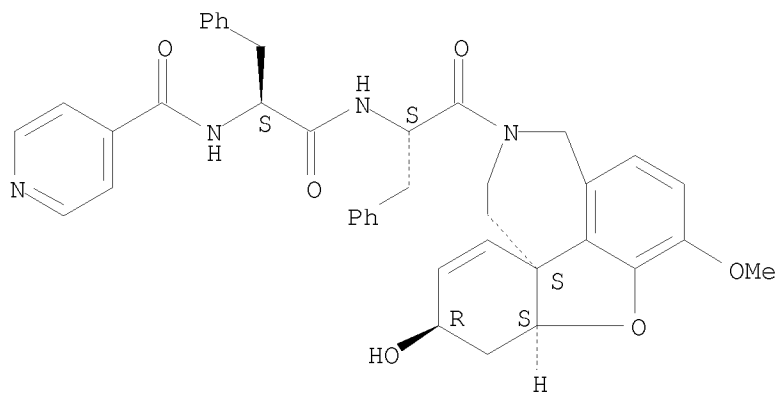


RN 365571-59-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[N-(4-pyridinylcarbonyl)-L-seryl-L-seryl]-, (4aS,6R,8aS)- (CA INDEX NAME)

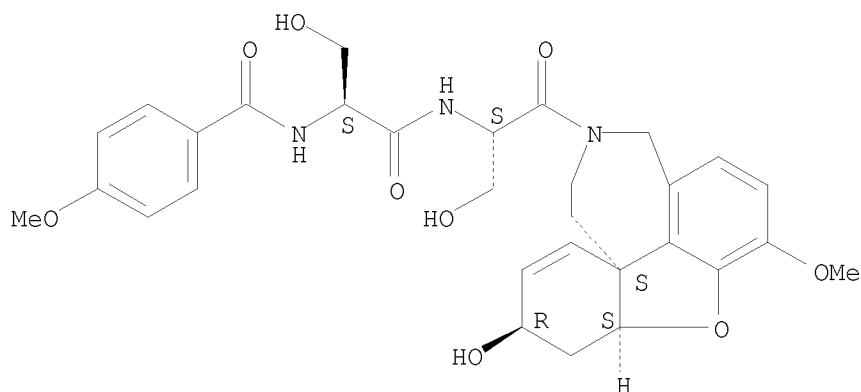
Absolute stereochemistry.

Absolute stereochemistry.



Absolute stereochemistry.

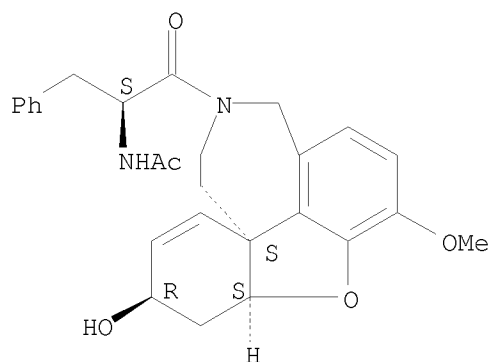
10/573,517



RN 365571-62-6 CAPLUS

CN Acetamide, N-[(1S)-2-oxo-1-(phenylmethyl)-2-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]ethyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



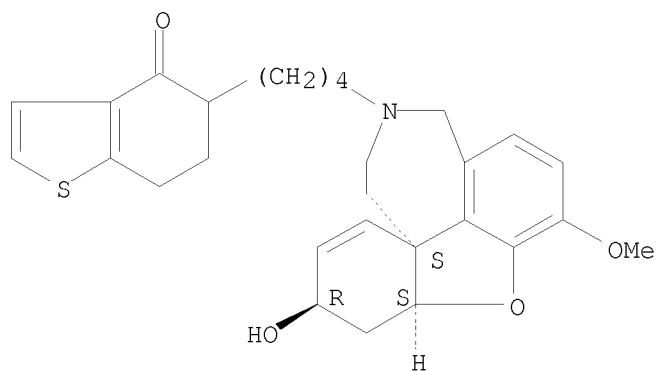
RN 365571-63-7 CAPLUS

CN Benzo[b]thiophen-4(5H)-one, 6,7-dihydro-5-[4-[(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.



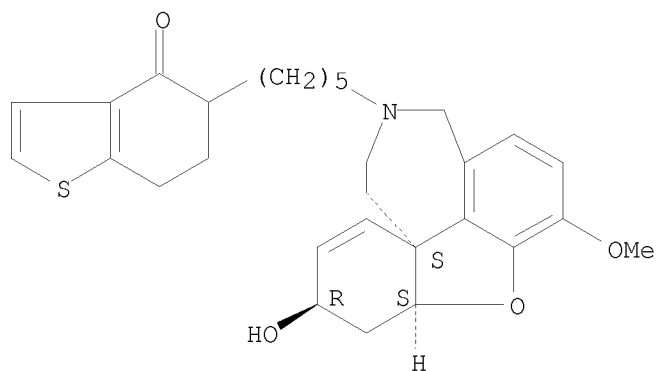
10/573,517



RN 365571-64-8 CAPLUS

CN Benzo[b]thiophen-4(5H)-one, 6,7-dihydro-5-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]- (CA INDEX NAME)

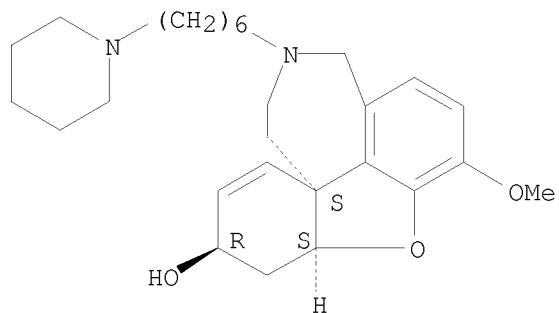
Absolute stereochemistry.



RN 365571-65-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[6-(1-piperidinyl)hexyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

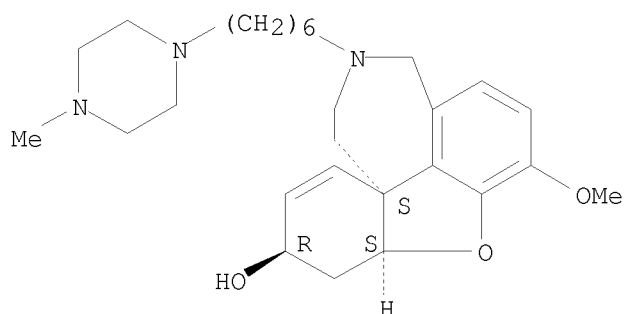
Absolute stereochemistry.



10/573,517

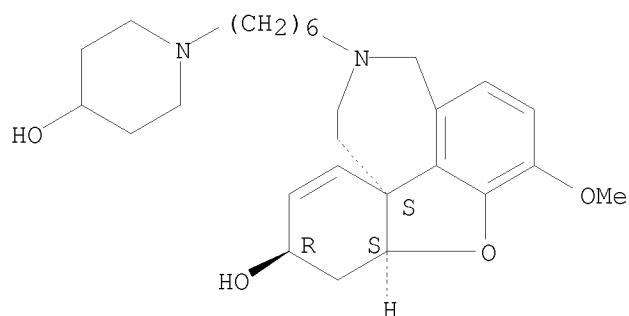
RN 365571-66-0 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-(4-methyl-1-piperazinyl)hexyl]-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 365571-67-1 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-3-[6-(4-hydroxy-1-piperidinyl)hexyl]-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

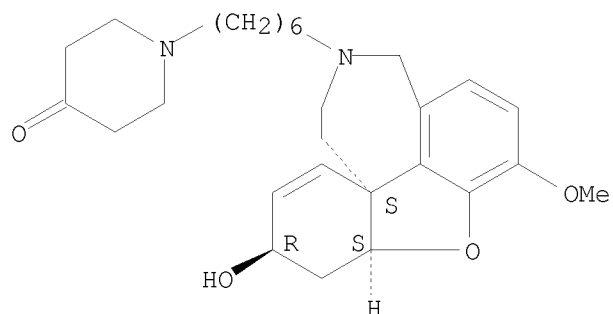
Absolute stereochemistry.



RN 365571-68-2 CAPLUS  
CN 4-Piperidinone, 1-[6-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]hexyl]- (CA INDEX NAME)

Absolute stereochemistry.

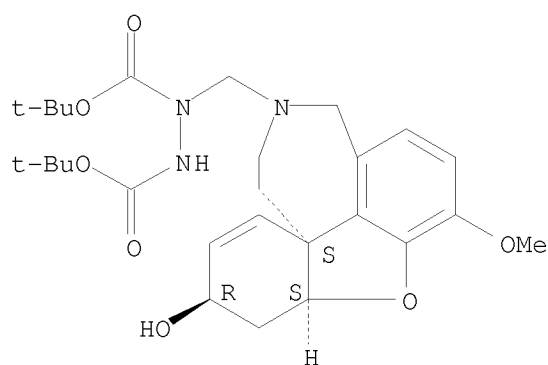
10/573,517



RN 365571-69-3 CAPLUS

CN 1,2-Hydrazinedicarboxylic acid, 1-[[[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]methyl]-, 1,2-bis(1,1-dimethylethyl) ester (CA INDEX NAME)

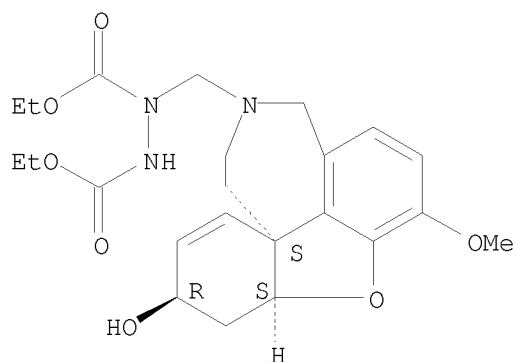
Absolute stereochemistry. Rotation (-).



RN 365571-70-6 CAPLUS

CN 1,2-Hydrazinedicarboxylic acid, 1-[[[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]methyl]-, 1,2-diethyl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

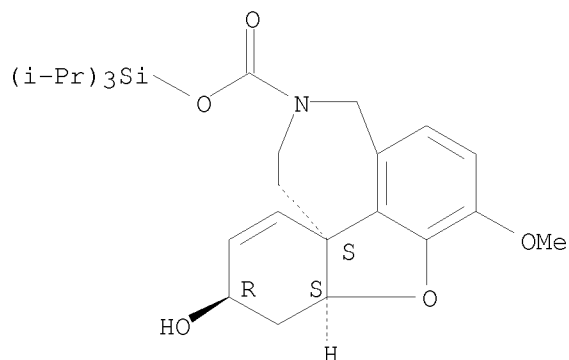


10/573,517

RN 365571-71-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxylic acid,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, tris(1-methylethyl)silyl ester,  
(4aS,6R,8aS)- (CA INDEX NAME)

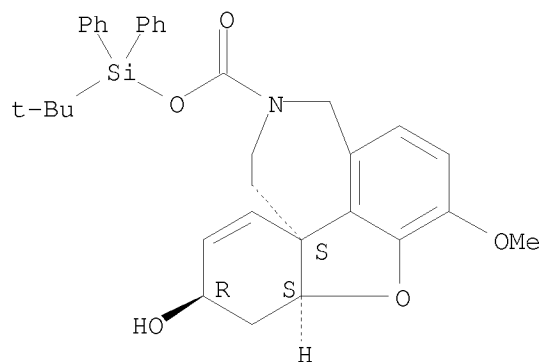
Absolute stereochemistry.



RN 365571-72-8 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxylic acid,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, (1,1-  
dimethylethyl)diphenylsilyl ester, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

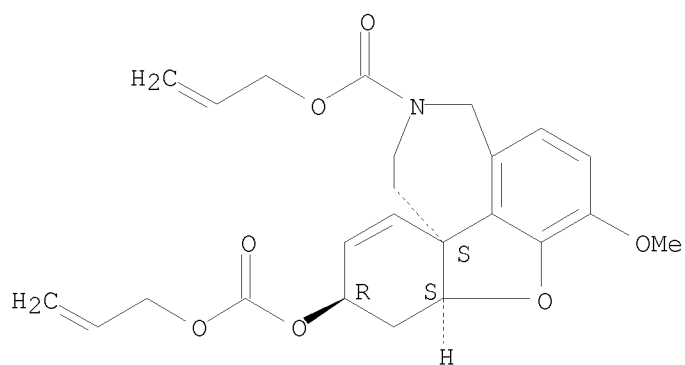


RN 365571-74-0 CAPLUS

CN 3H-Benzofuro[3a,3,2-ef][2]benzazepine-8(9H)-carboxylic acid,  
1a,2,6,7-tetrahydro-12-methoxy-3-[[ (2-propen-1-yloxy)carbonyl]oxy]-,  
2-propen-1-yl ester, (1aS,3R,5aS)- (CA INDEX NAME)

Absolute stereochemistry.

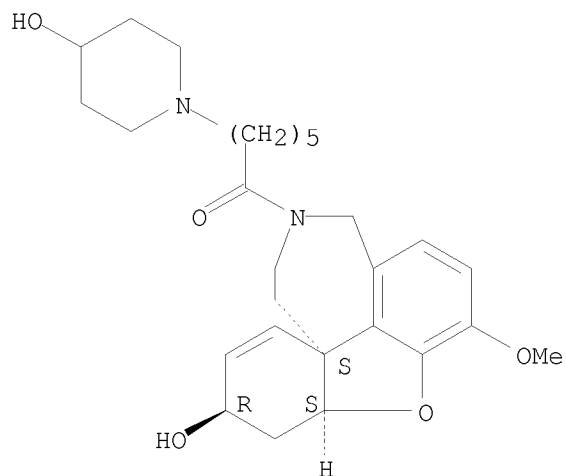
10/573,517



RN 365571-75-1 CAPLUS

CN 1-Hexanone, 6-(4-hydroxy-1-piperidiny)-1-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

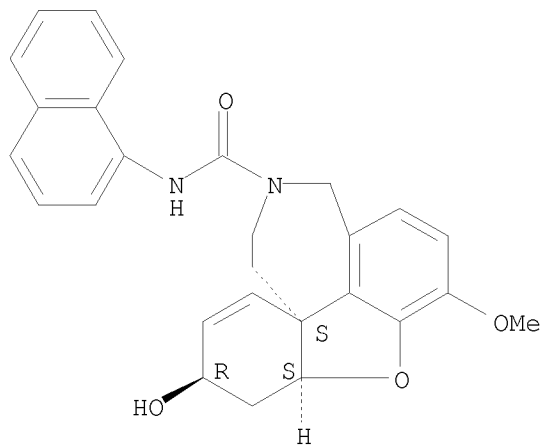


RN 365571-76-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-1-naphthalenyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517

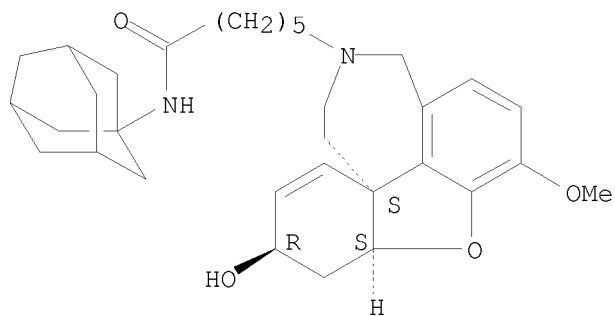


RN 365571-79-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-hexanamide,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl-,  
(4aS,6R,8aS)-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365571-78-4  
CMF C32 H44 N2 O4

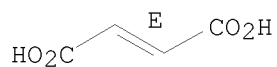
Absolute stereochemistry.



CM 2

CRN 110-17-8  
CMF C4 H4 O4

Double bond geometry as shown.



RN 365571-81-9 CAPLUS

10/573,517

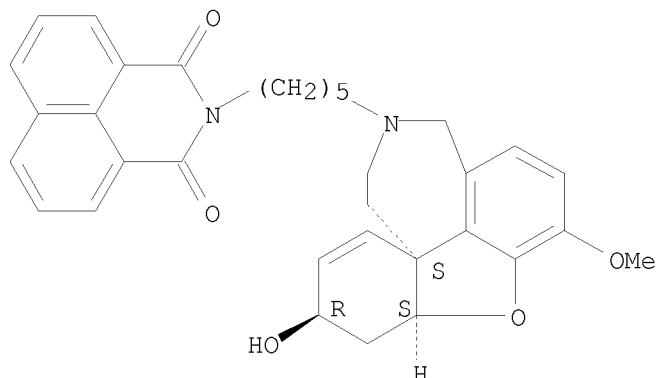
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[5-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]pentyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 365571-80-8

CMF C33 H34 N2 O5

Absolute stereochemistry.

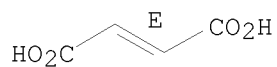


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 365571-83-1 CAPLUS

CN 1-Hexanone, 1-(3,4-dimethoxyphenyl)-6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

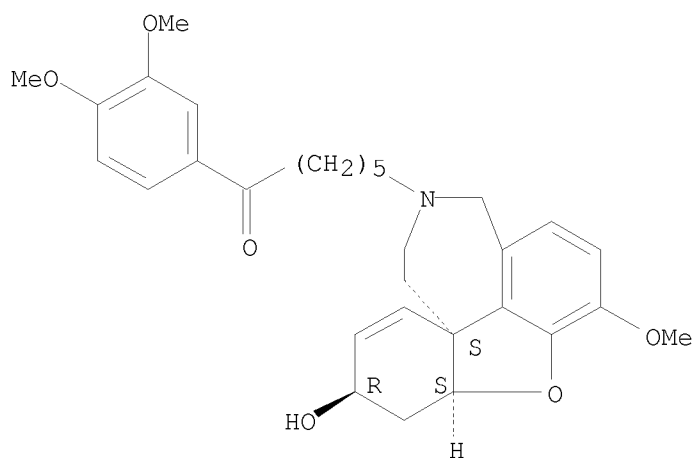
CM 1

CRN 365571-82-0

CMF C30 H37 N O6

Absolute stereochemistry.

10/573,517

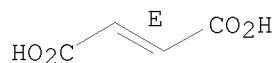


CM 2

CRN 110-17-8

CMF C4 H4 O4

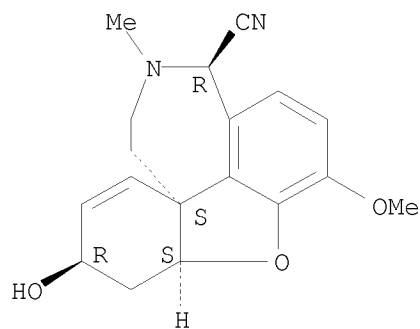
Double bond geometry as shown.



RN 365571-86-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-12-carbonitrile,  
4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-,  
(4aS,6R,8aS,12R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 365571-90-0 CAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-2(1H)-one, 5,6-dihydro-8-[1-oxo-6-  
[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-  
ef][2]benzazepin-11(12H)-yl]hexyl]-, (2E)-2-butenedioate (1:1) (CA INDEX  
NAME)



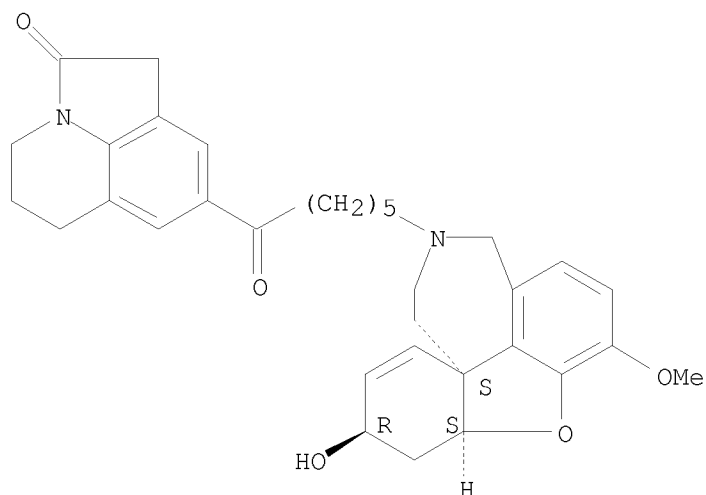
10/573,517

CM 1

CRN 365571-32-0

CMF C33 H38 N2 O5

Absolute stereochemistry.

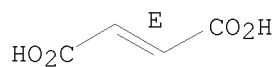


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 365571-94-4 CAPLUS

CN 4H-Pyrrolo[3,2,1-ij]quinolin-4-one, 1,2,5,6-tetrahydro-8-[1-oxo-6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

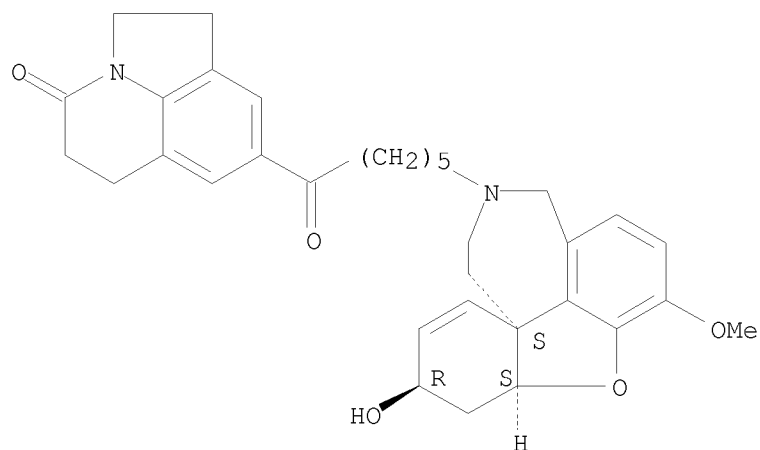
CM 1

CRN 365571-34-2

CMF C33 H38 N2 O5

Absolute stereochemistry.

10/573,517

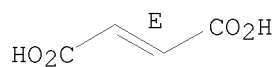


CM 2

CRN 110-17-8

CMF C4 H4 O4

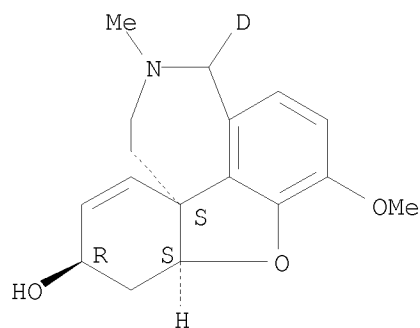
Double bond geometry as shown.



RN 365571-95-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-12-d-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

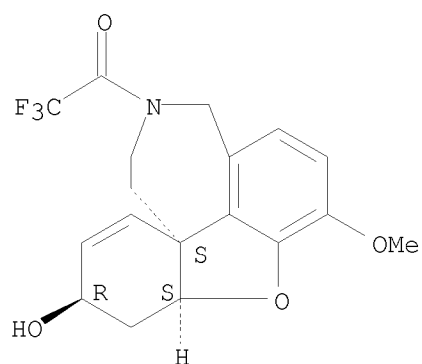


RN 365574-25-0 CAPLUS

CN Ethanone, 2,2,2-trifluoro-1-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

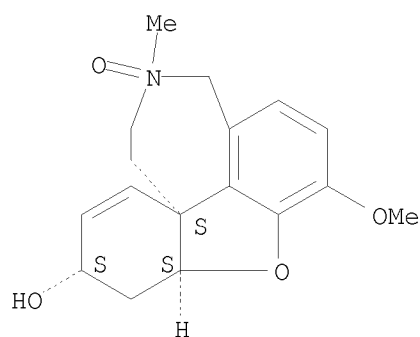
10/573,517



RN 366485-18-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 11-oxide, (4aS,6S,8aS)- (CA INDEX NAME)

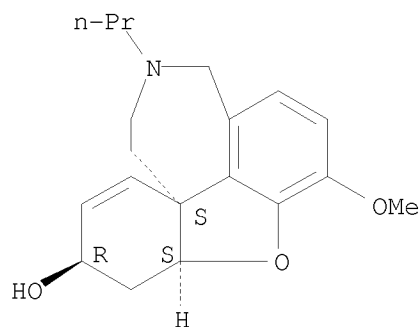
Absolute stereochemistry.



RN 366485-20-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-propyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



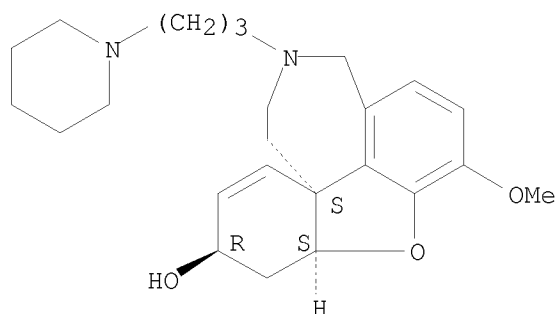
RN 366485-22-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, hydrobromide (1:1), (4aS,6R,8aS)-

10/573,517

(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

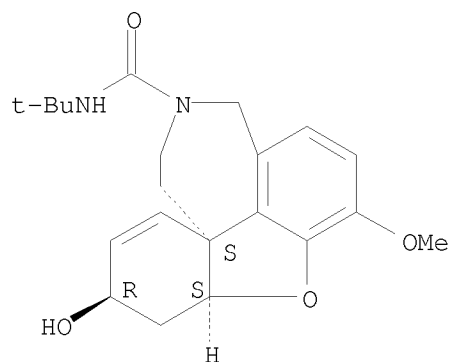


● HBr

RN 849355-37-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-(1,1-dimethylethyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



IT 198988-74-8

RL: RCT (Reactant); RACT (Reactant or reagent)

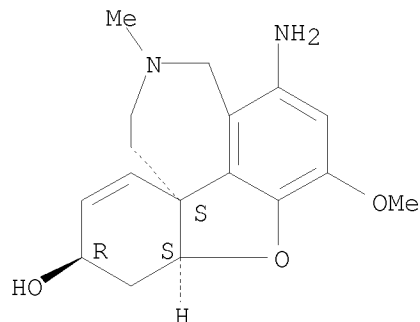
(preparation of galanthamine analogs for pharmaceutical use as acetyl- and  
butyrylcholinesterase inhibitors)

RN 198988-74-8 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 5-amino-3,4,8a,9-  
tetrahydro-7-methoxy-3-methyl-, (8aS,10R,12aS)- (CA INDEX NAME)

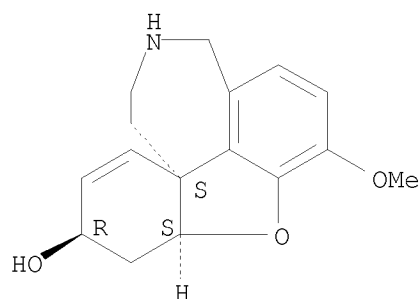
Absolute stereochemistry.

10/573,517



IT 41303-52-0P 41303-74-6P 179107-99-4P  
365571-77-3DP, polymer bound 365572-41-4P  
365572-44-7DP, polymer bound 365572-45-8DP, polymer  
bound 365572-46-9DP, polymer bound  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation of galanthamine analogs for pharmaceutical use as acetyl- and  
butyrylcholinesterase inhibitors)  
RN 41303-52-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

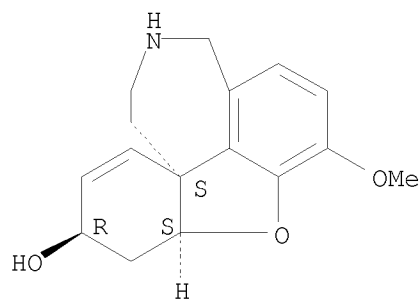
Relative stereochemistry.



RN 41303-74-6 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-  
methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

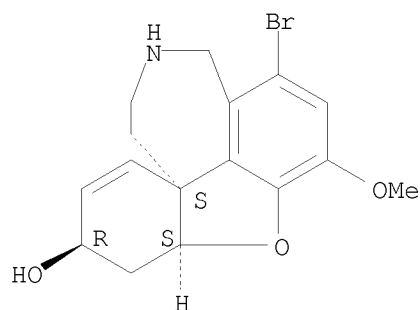
10/573,517



RN 179107-99-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

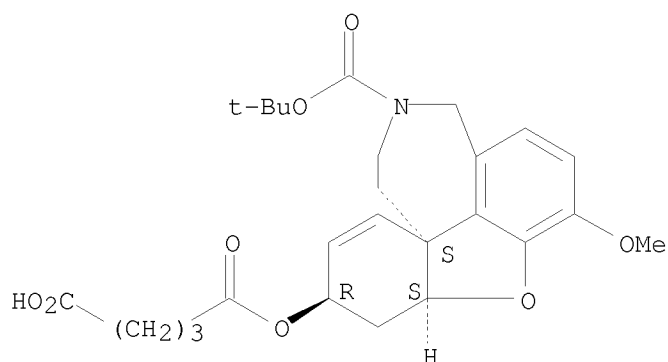
Relative stereochemistry.



RN 365571-77-3 CAPLUS

CN Pentanedioic acid, 1-[(4aS,6R,8aS)-11-[(1,1-dimethylethoxy)carbonyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry.



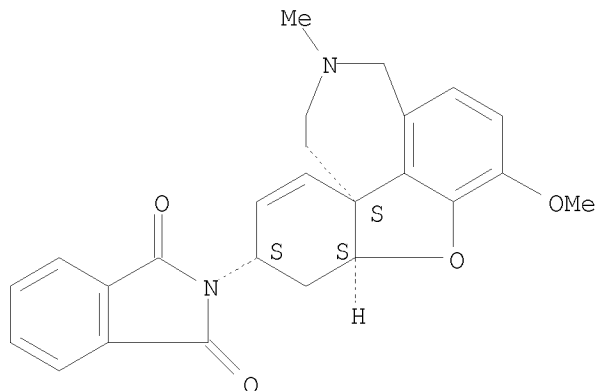
RN 365572-41-4 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(4aS,6S,8aS)-4a,5,9,10,11,12-hexahydro-3-

10/573,517

methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl]- (CA INDEX NAME)

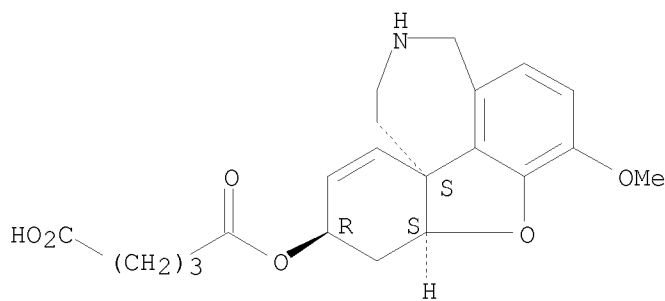
Absolute stereochemistry.



RN 365572-44-7 CAPLUS

CN Pentanedioic acid, 1-[(4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry.

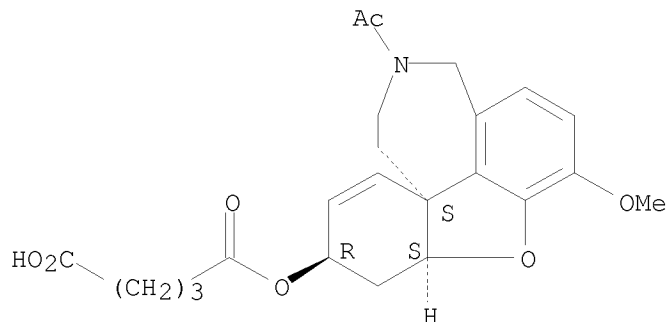


RN 365572-45-8 CAPLUS

CN Pentanedioic acid, 1-[(4aS,6R,8aS)-11-acetyl-4a,5,9,10,11,12-hexahydro-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

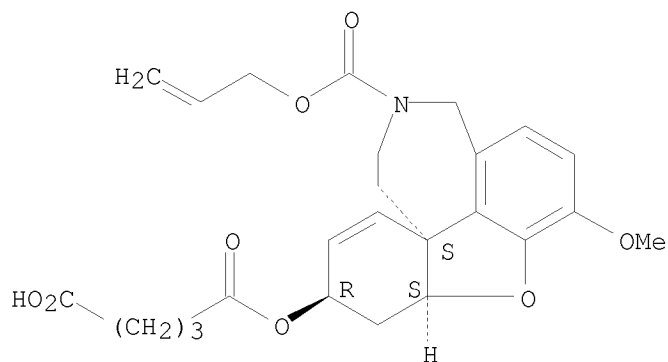
Absolute stereochemistry.

10/573,517



RN 365572-46-9 CAPLUS  
CN Pentanedioic acid, mono[(4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[(2-propenyloxy)carbonyl]-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (9CI) (CA INDEX NAME)

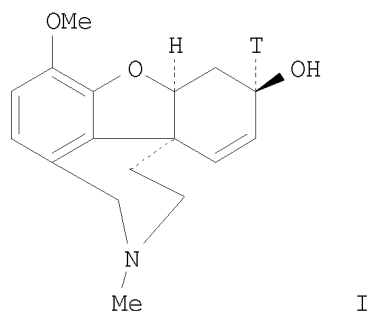
Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

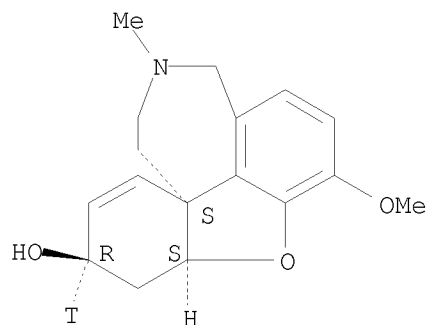


L61 ANSWER 43 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2001:620061 CAPLUS  
 DOCUMENT NUMBER: 135:318601  
 TITLE: Synthesis of 3H-(-)-galanthamine  
 AUTHOR(S): Linnemann, Elmar; Fels, Gregor  
 CORPORATE SOURCE: Universitat Paderborn, FB 13 - Organische Chemie,  
 Paderborn, D-33098, Germany  
 SOURCE: Journal of Labelled Compounds & Radiopharmaceuticals  
 (2001), 44(9), 661-669  
 CODEN: JLCRD4; ISSN: 0362-4803  
 PUBLISHER: John Wiley & Sons Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 135:318601  
 GI



AB 3H-(-)-galanthamine (0.881 TBq/mmol, I) was synthesized via stereoselective reduction of (-)-narwedine with tritiated L-Selectride. This reaction sequence was favored over an exchange of aromatic bromine with lithium aluminum tritide.  
 IT 368887-43-8P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis of 3H-(-)-galanthamine)  
 RN 368887-43-8 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-t-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

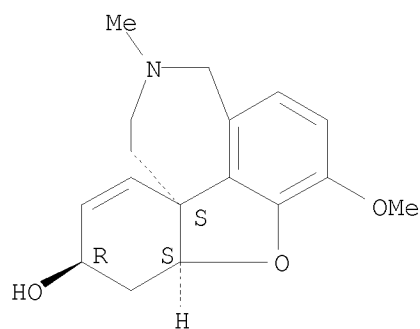
Absolute stereochemistry.



10/573,517

IT 1953-04-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthesis of 3H-(-)-galanthamine)  
RN 1953-04-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

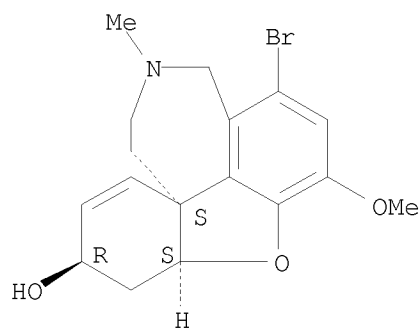
Absolute stereochemistry. Rotation (-).



● HBr

IT 183626-04-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis of 3H-(-)-galanthamine)  
RN 183626-04-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

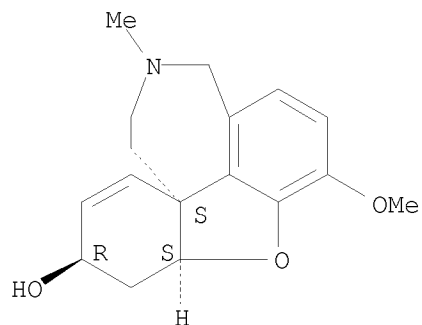
Absolute stereochemistry. Rotation (-).



IT 357-70-0P 209735-28-4P 210474-66-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of 3H-(-)-galanthamine)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

10/573,517

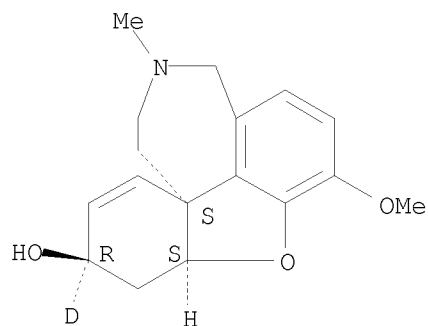
Absolute stereochemistry. Rotation (-).



RN 209735-28-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-d-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

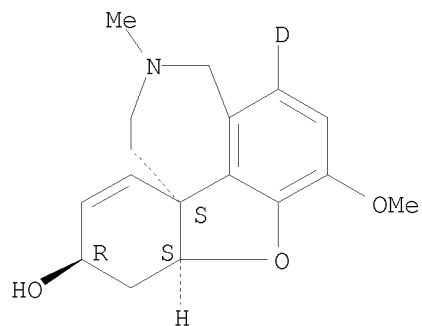
Absolute stereochemistry. Rotation (-).



RN 210474-66-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-1-d-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

14

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 44 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:428216 CAPLUS

DOCUMENT NUMBER: 135:267055

TITLE: Accurate prediction of the bound conformation of galanthamine in the active site of torpedo californica acetylcholinesterase using molecular docking

AUTHOR(S): Pilger, C.; Bartolucci, C.; Lamba, D.; Tropsha, A.; Fels, G.

CORPORATE SOURCE: Chemie und Chemietechnik, Universitaet-GH Paderborn, Paderborn, Germany

SOURCE: Journal of Molecular Graphics &amp; Modelling (2001), 19(3/4), 288-296

CODEN: JMGMF1; ISSN: 1093-3263

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The alkaloid (-)-galanthamine is known to produce significant improvement of cognitive performances in patients with the Alzheimer's disease. Its mechanism of action involves competitive and reversible inhibition of acetylcholinesterase (AChE). Herein, the authors correctly predict the orientation and conformation of the galanthamine mol. in the active site of AChE from Torpedo californica (TcAChE) using a combination of rigid docking and flexible geometry optimization with a mol. mechanics force field. The quality of the predicted model is remarkable, as indicated by the value of the RMS deviation of .apprx.0.5A when compared with the crystal structure of the TcAChE-galanthamine complex. A mol. model of the complex between TcAChE and a galanthamine derivative, SPH1107, with a long chain substituent on the nitrogen has been generated as well. The side chain of this ligand is predicted to extend along the enzyme active site gorge from the anionic subsite, at the bottom, to the peripheral anionic site, at the top. The docking procedure described in this paper can be applied to produce models of ligand-receptor complexes for AChE and other macromol. targets of drug design.

IT 357-70-0, (-)-Galanthamine

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

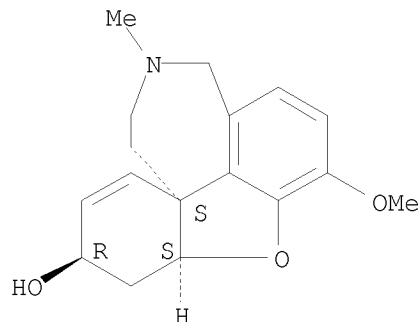
(accurate prediction of bound conformation of galanthamine in active site of torpedo californica acetylcholinesterase using mol. docking in relation to drug design)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

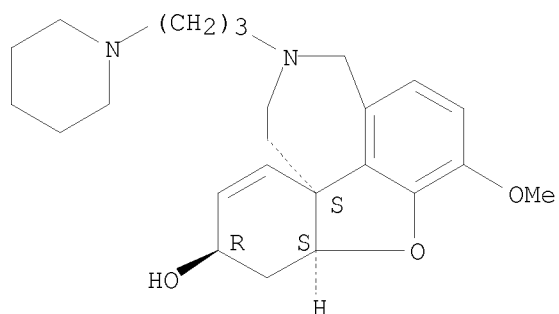
Absolute stereochemistry. Rotation (-).

10/573,517



IT 273759-74-3, SPH1107  
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)  
(accurate prediction of bound conformation of galanthamine in active site of torpedo californica acetylcholinesterase using mol. docking in relation to drug design)  
RN 273759-74-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)propyl]-, hydrochloride (1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● 2 HCl

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 45 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:59880 CAPLUS

DOCUMENT NUMBER: 134:260867

TITLE: Three-dimensional structure of a complex of galanthamine (nivalin) with acetylcholinesterase from *Torpedo californica*: implications for the design of new anti-Alzheimer drugs

AUTHOR(S): Bartolucci, Cecilia; Perola, Emanuele; Pilger, Christian; Fels, Gregor; Lamba, Dorian

CORPORATE SOURCE: Istituto di Strutturistica Chimica "G. Giacomello", Rome, Italy

SOURCE: Proteins: Structure, Function, and Genetics (2001), 42(2), 182-191

CODEN: PSFGY; ISSN: 0887-3585

PUBLISHER: Wiley-Liss, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The 3D structure of a complex of the anti-Alzheimer drug galanthamine with *Torpedo californica* acetylcholinesterase is reported. Galanthamine, a tertiary alkaloid extracted from several species of Amaryllidaceae, is so far the only drug that shows a dual activity, being both an acetylcholinesterase inhibitor and an allosteric potentiator of the nicotinic response induced by acetylcholine and competitive agonists. The x-ray structure, at 2.5Å resolution, shows an unexpected orientation of the ligand within the active site, as well as unusual protein-ligand interactions. The inhibitor binds at the base of the active site gorge, interacting with both the acyl-binding pocket and the principal quaternary ammonium-binding site. However, the tertiary amine group of galanthamine does not directly interact with Trp84. A docking study using the program AUTODOCK correctly predicts the orientation of galanthamine in the active site. The docked lowest-energy structure has a root mean square deviation of 0.5Å with respect to the corresponding crystal structure of the complex. The observed binding mode explains the affinities of a series of structural analogs of galanthamine and provides a rational basis for structure-based drug design of synthetic derivs. with improved pharmacol. properties.

IT 187796-02-7 210474-61-6 331816-48-9  
331816-50-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

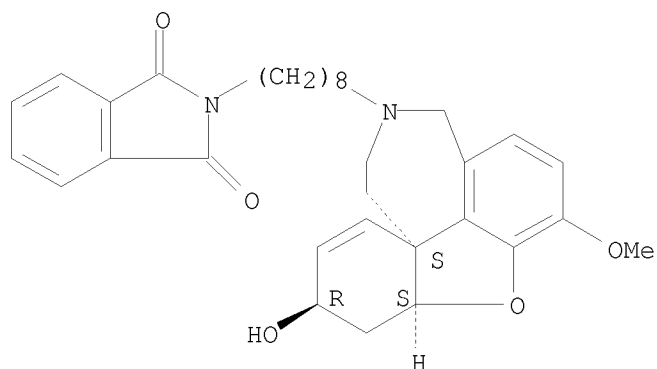
(three-dimensional structure of a complex of galanthamine (nivalin) with acetylcholinesterase from *Torpedo californica*)

RN 187796-02-7 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[8-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]octyl]-(CA INDEX NAME)

Absolute stereochemistry.

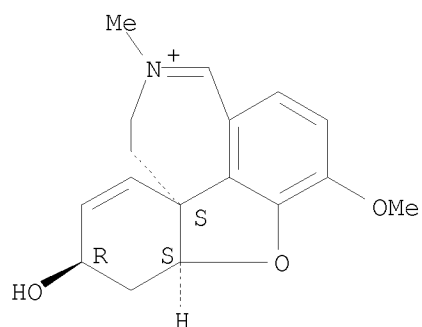
10/573,517



RN 210474-61-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

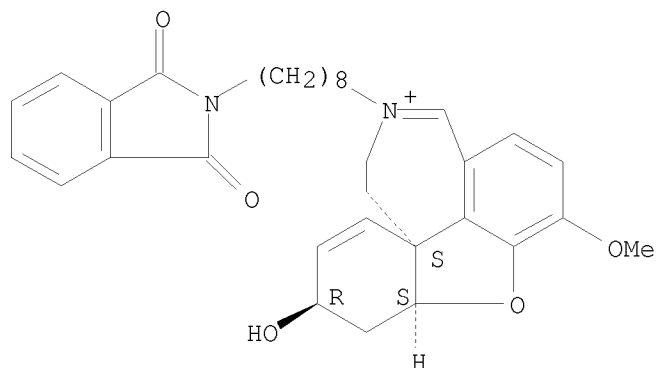
Absolute stereochemistry. Rotation (-).



RN 331816-48-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-[8-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)octyl]-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

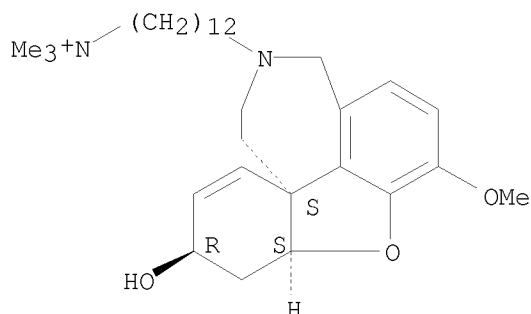
Absolute stereochemistry.



10/573,517

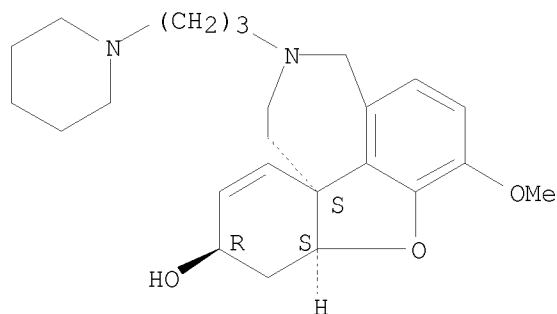
RN 331816-50-3 CAPLUS  
CN 3H-Benzofuro[3a,3,2-ef][2]benzazepine-8(9H)-dodecanaminium,  
1a,2,6,7-tetrahydro-3-hydroxy-12-methoxy-N,N,N-trimethyl-, (1aS,3R,5aS)-  
(CA INDEX NAME)

Absolute stereochemistry.



IT 331824-90-9  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(three-dimensional structure of a complex of galanthamine (nivalin)  
with acetylcholinesterase from *Torpedo californica*)  
RN 331824-90-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-[3-(1-piperidinyl)propyl]-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

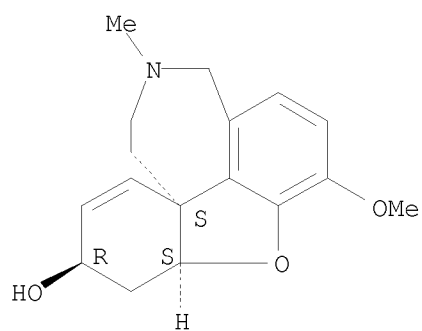


IT 1953-04-4, Nivalin  
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP  
(Properties); THU (Therapeutic use); BIOL (Biological study); PROC  
(Process); USES (Uses)  
(three-dimensional structure of a complex of galanthamine (nivalin)  
with acetylcholinesterase from *Torpedo californica*)  
RN 1953-04-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-  
methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



10/573,517



● HBr

REFERENCE COUNT:

49

THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 46 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:752370 CAPLUS

DOCUMENT NUMBER: 134:42292

TITLE: Enantioselective total synthesis of (-)-galanthamine

AUTHOR(S): Trost, Barry M.; Toste, F. Dean

CORPORATE SOURCE: Department of Chemistry, Stanford University,  
Stanford, CA, 94305, USASOURCE: Journal of the American Chemical Society (2000),  
122(45), 11262-11263

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:42292

AB The asym. synthesis of (-)-galanthamine is described. The approach, which  
should be useful for galanthamine-type alkaloids, features  
palladium-catalyzed asym. allylic alkylation and intramol. Heck reaction.

IT 312920-69-7P, 3-Deoxygalanthamine

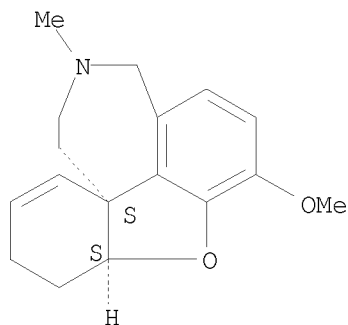
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(enantioselective total synthesis of (-)-Galanthamine)

RN 312920-69-7 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-  
methyl-, (8aS,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 357-70-0P, (-)-Galanthamine

RL: SPN (Synthetic preparation); PREP (Preparation)

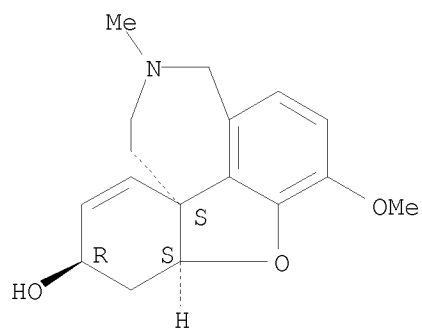
(enantioselective total synthesis of (-)-Galanthamine)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



REFERENCE COUNT:

53

THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 47 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:383937 CAPLUS

DOCUMENT NUMBER: 133:26864

TITLE: Use of galanthamine and galanthamine derivatives for the treatment of acute functional brain damage

INVENTOR(S): Mucke, Martin Alois Hermann; Frohlich, Johannes; Jordis, Ulrich

PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

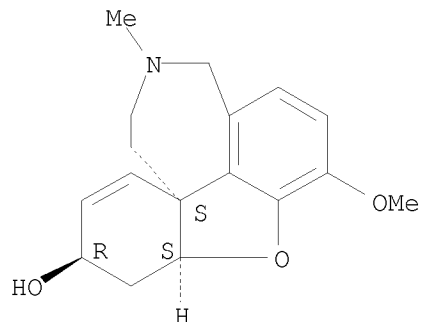
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000032199	A1	20000608	WO 1998-AT291	19981201
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9914300	A1	20000619	AU 1999-14300	19981201
PRIORITY APPLN. INFO.:			WO 1998-AT291	A 19981201
AB	The invention relates to the use of galanthamine and analogs or acidic addition salts thereof in the production of medicaments for treating states arising from cerebrovascular accidents or closed focal craniocerebral traumas or whiplash injuries.			
IT	357-70-0, Galanthamine 357-70-0D, Galanthamine, derivs. 198987-71-2, SPH 1241 198988-25-9, SPH 1096 198988-29-3, SPH 1099 273759-73-2, SPH 1092 273759-74-3, SPH 1107 273930-29-3, SPH 1286 849355-37-9, SPH 1221 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (galanthamine and derivs. for treatment of acute functional brain damage)			
RN	357-70-0 CAPLUS			
CN	6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)			

Absolute stereochemistry. Rotation (-).

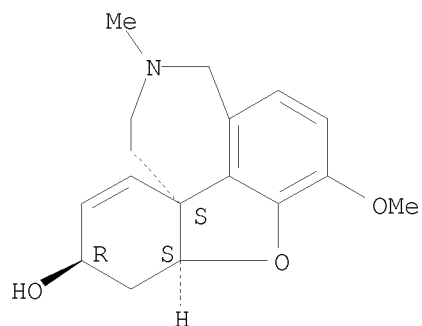
10/573,517



RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

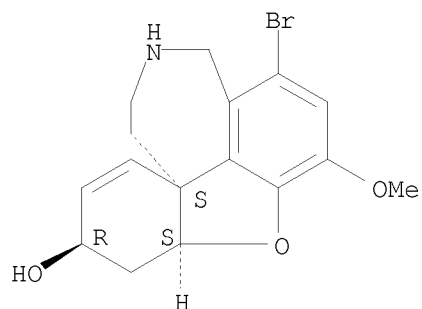
Absolute stereochemistry. Rotation (-).



RN 198987-71-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

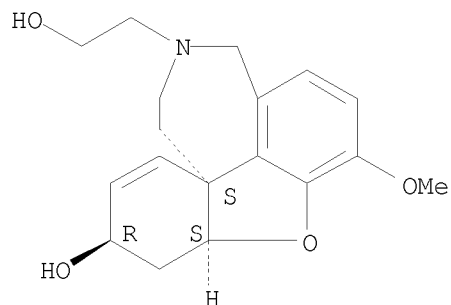


RN 198988-25-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-ethanol, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

10/573,517

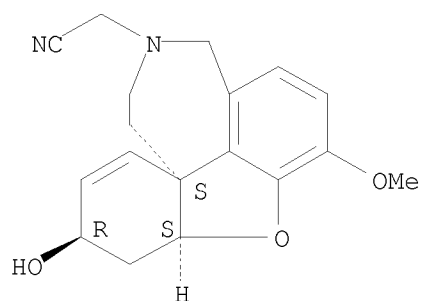
Relative stereochemistry.



RN 198988-29-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetonitrile,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX  
NAME)

Relative stereochemistry.

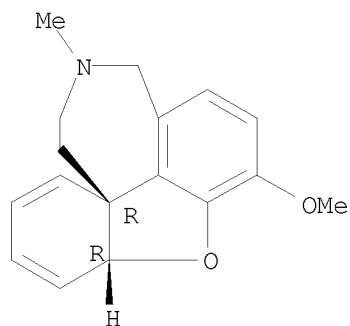


RN 273759-73-2 CAPLUS

CN 8aH-Benzofuro[3a,3,2-ef][2]benzazepine, 1,2,3,4-tetrahydro-7-methoxy-3-  
methyl-, hydrobromide (1:1), (8aR,12aR)- (CA INDEX NAME)

Absolute stereochemistry.

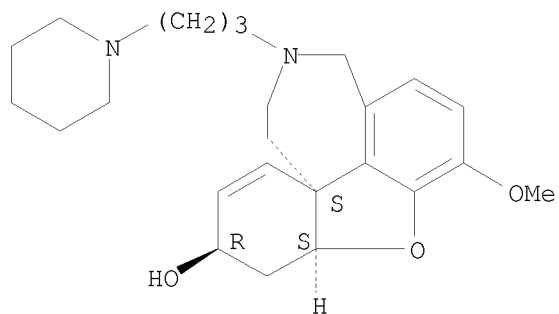
10/573,517



● HBr

RN 273759-74-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, hydrochloride (1:2), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● 2 HCl

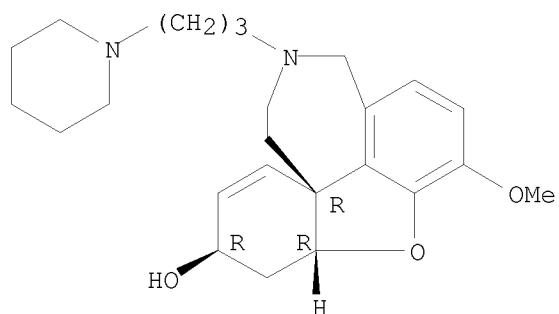
RN 273930-29-3 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidinyl)propyl]-, (4aR,6R,8aR)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 273930-28-2  
CMF C24 H34 N2 O3

Absolute stereochemistry.

10/573,517

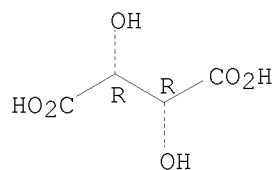


CM 2

CRN 87-69-4

CMF C4 H6 O6

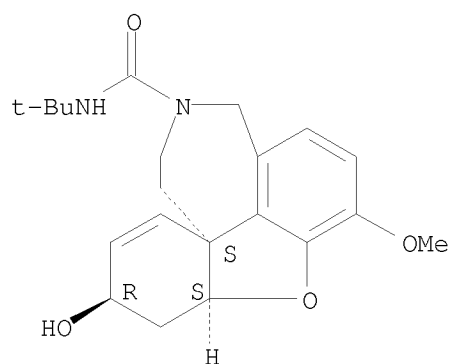
Absolute stereochemistry.



RN 849355-37-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-carboxamide,  
N-(1,1-dimethylethyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-,  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



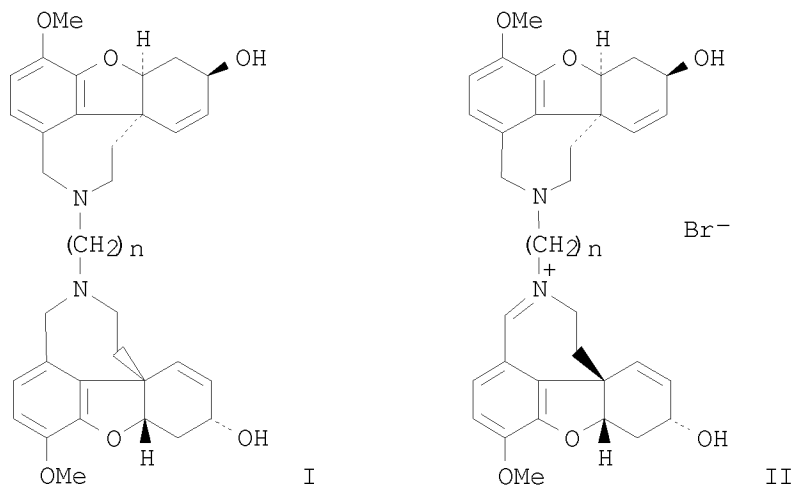
REFERENCE COUNT:

20

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L61 ANSWER 48 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2000:235084 CAPLUS  
 DOCUMENT NUMBER: 133:17670  
 TITLE: Potent acetylcholinesterase inhibitors: design, synthesis and structure-activity relationships of alkylene linked bis-galanthamine and galanthamine-galanthaminium salts  
 AUTHOR(S): Guillou, Catherine; Mary, Aude; Renko, Dolor Zafiarisoa; Gras, Emmanuel; Thal, Claude  
 CORPORATE SOURCE: Institut de Chimie des Substances Naturelles, C.N.R.S., Gif-sur-Yvette, 91198, Fr.  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(7), 637-639  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB The syntheses, the anticholinesterase activities and structure-activity relationships of homodimeric I (n = 6, 8, 10) and heterodimeric II (n = 6, 8, 10) alkylene linked bis-galanthamine are reported. Compds. II were more potent than galanthamine and tacrine in inhibiting AChE.

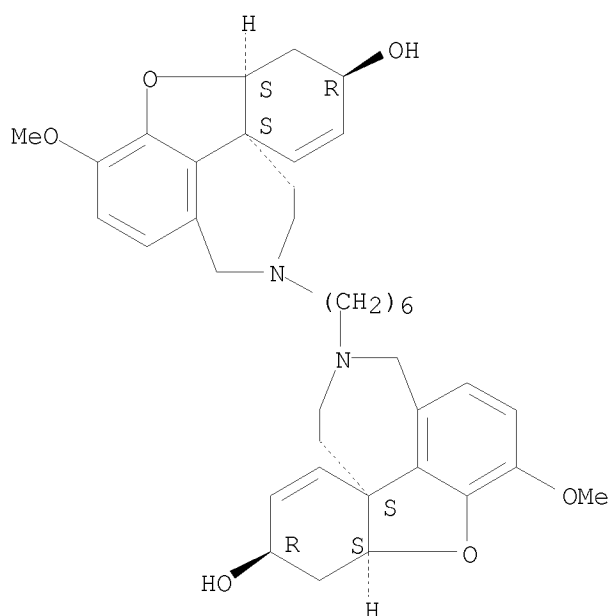
IT 271769-54-1P 271769-55-2P 271769-56-3P  
 271769-60-9P 271769-61-0P 271769-62-1P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (potent acetylcholinesterase inhibitors: design, synthesis and structure-activity relationships of alkylene linked bis-galanthamine and galanthamine-galanthaminium salts)

RN 271769-54-1 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]-, (8aS,10R,12aS)- (CA INDEX NAME)

10/573,517

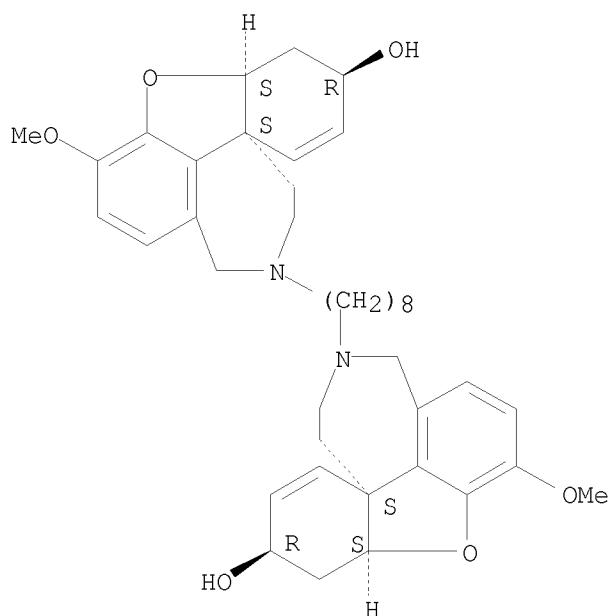
Absolute stereochemistry.



RN 271769-55-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11,11'-(1,8-octanediyl)bis[4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,4'aS,6R,6'R,8aS,8'aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

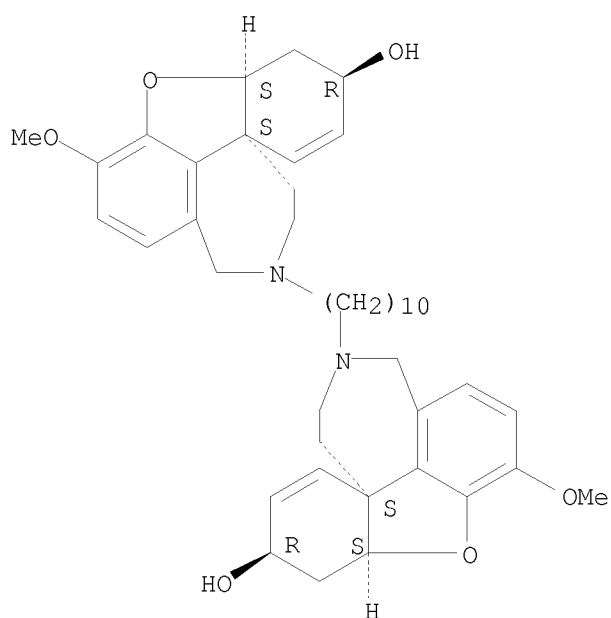


10/573,517

RN 271769-56-3 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 3,4,8a,9-tetrahydro-7-methoxy-3-[10-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]decyl]-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

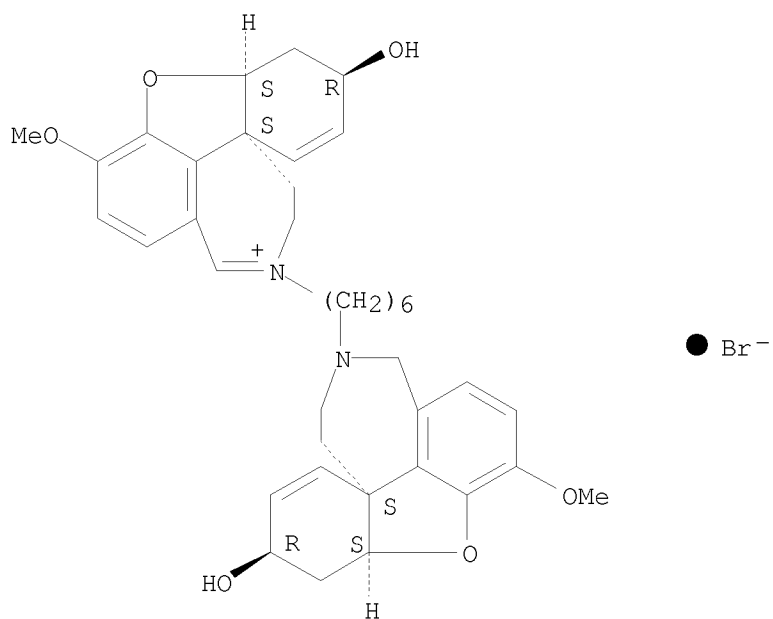


RN 271769-60-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-3-[6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]-, bromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

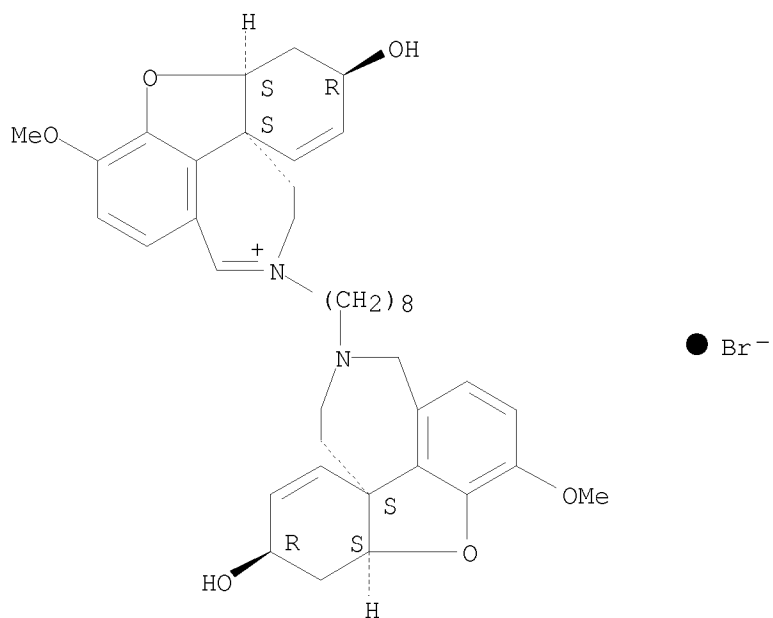
10/573,517



RN 271769-61-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-[8-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]octyl]-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

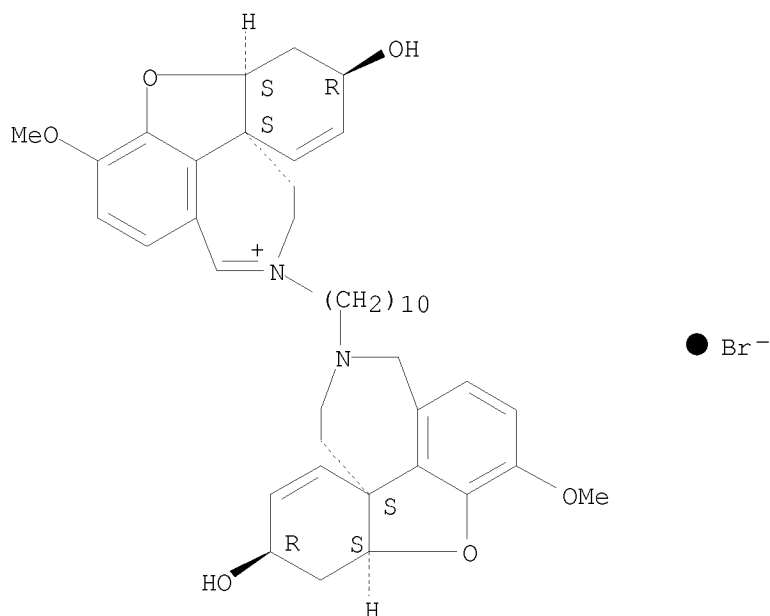
Absolute stereochemistry.



10/573,517

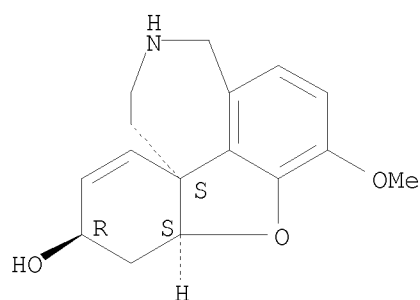
RN 271769-62-1 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-[10-[(8aS,10R,12aS)-1,4,8a,9-tetrahydro-10-hydroxy-7-methoxy-2H,3H,10H-benzofuro[3a,3,2-ef][2]benzazepin-3-yl]decyl]-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



IT 41303-74-6, Norgalanthamine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(potent acetylcholinesterase inhibitors: design, synthesis and structure-activity relationships of alkylene linked bis-galanthamine and galanthamine-galanthaminium salts)  
RN 41303-74-6 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 271769-57-4P 271769-58-5P 271769-59-6P

10/573,517

271769-63-2P

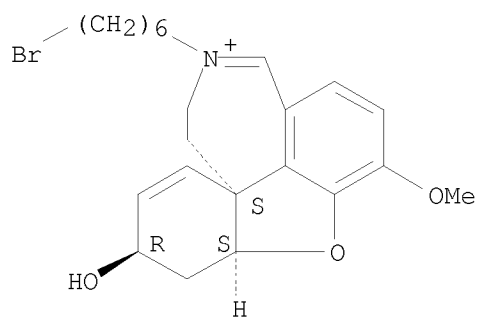
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(potent acetylcholinesterase inhibitors: design, synthesis and structure-activity relationships of alkylene linked bis-galanthamine and galanthamine-galanthaminium salts)

RN 271769-57-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-(6-bromohexyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

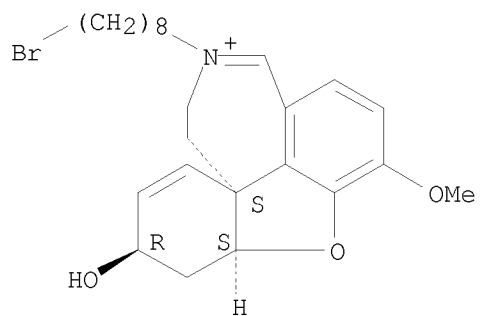
Absolute stereochemistry.



RN 271769-58-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-(8-bromooctyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



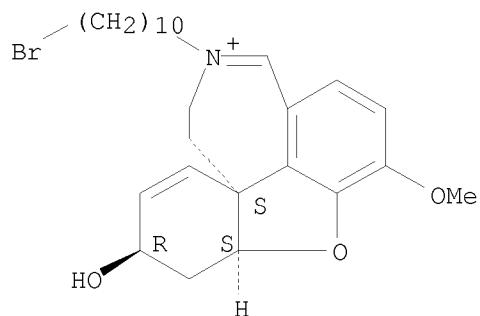
RN 271769-59-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-(10-bromodecyl)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

10/573,517

NAME)

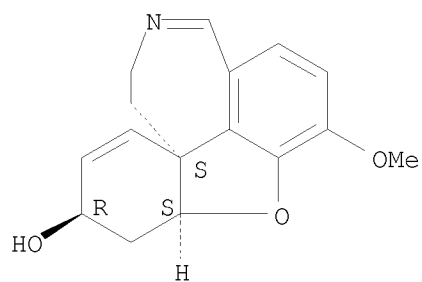
Absolute stereochemistry.



RN 271769-63-2 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,8a,9-tetrahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



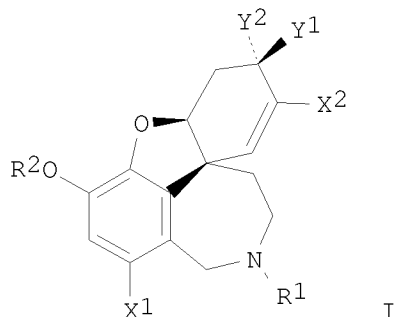
REFERENCE COUNT:

20

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 49 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2000:205650 CAPLUS  
 DOCUMENT NUMBER: 132:237232  
 TITLE: Preparation of derivatives of 4a,5,9,10,11,12-hexahydro-6H-benzofuro[3a,3,2-ef][2]benzazepine  
 INVENTOR(S): Czollner, Laszlo; Frohlich, Johannes; Jordis, Ulrich; Kuenburg, , Bernhard  
 PATENT ASSIGNEE(S): Sanochemia Pharmazeutika A.-G., Austria  
 SOURCE: U.S., 28 pp., Cont.-in-part of U.S. Ser. No. 487,102, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6043359	A	20000328	US 1997-839350	19970418
AT 401058	B	19960625	AT 1994-1980	19941021
AT 9401980	A	19951015		
WO 9612692	A1	19960502	WO 1995-AT208	19951023
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6407229	B1	20020618	US 1999-296609	19990423
US 6369238	B1	20020409	US 2001-814778	20010323
PRIORITY APPLN. INFO.:			AT 1994-1980	A 19941021
			US 1995-487102	B2 19950607
			WO 1995-AT208	W 19951023
			US 1997-839350	A3 19970418
			US 1999-296609	A3 19990423
OTHER SOURCE(S):		CASREACT 132:237232; MARPAT 132:237232		
GI				



AB The invention relates to processes for the preparation of 4a,5,9,10,11,12-



hexahydro-6H-benzofuro[3a,3,2-ef][2]benzazepine, or derivs. thereof, e.g. of formula I [R1, R2, X1, X2, Y1, Y2 = H, halo, OH, alkoxy, alkyl, CHO, aryl, etc.; Y1Y2 = O]. Thus, 6-bromo-4-methoxy-3-hydroxybenzaldehyde and tyramine are condensed, then reduced and N-formylated. The product is then oxidatively cyclized to form the benzofuro[3a,3,2-ef][2]benzazepinone product, which is transformed into galanthamine. The racemic product is resolved by crystallization with (+)-di-p-toluoyl-D-tartaric acid.

IT 357-70-0P, (-)-Galanthamine

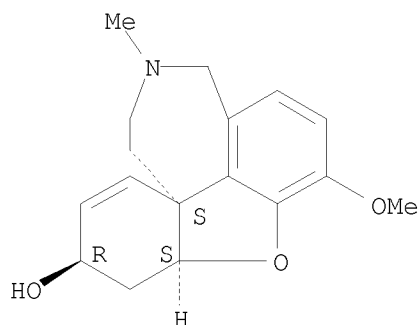
RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)

(preparation of derivs. of hexahydro-6H-benzofuro[3a,3,2-ef][2]benzazepine)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 179107-98-3P 179107-99-4P 179239-41-9P

180854-29-9P

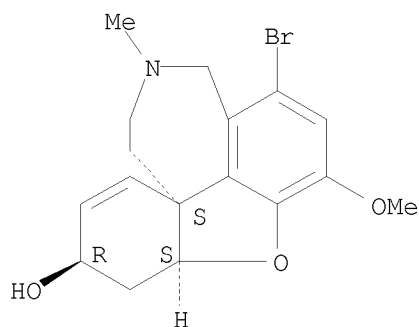
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of derivs. of hexahydro-6H-benzofuro[3a,3,2-ef][2]benzazepine)

RN 179107-98-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

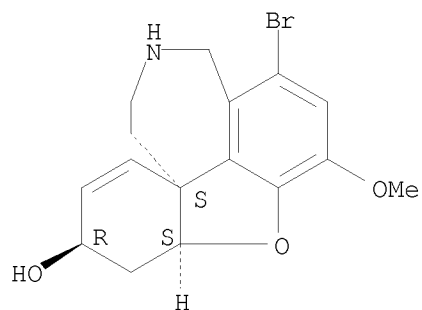


RN 179107-99-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

10/573,517

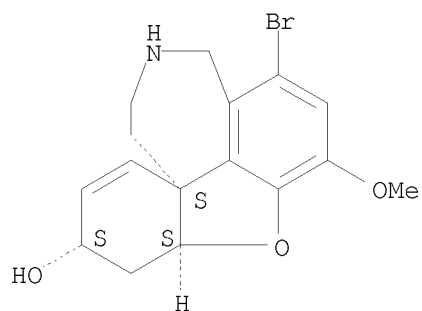
Relative stereochemistry.



RN 179239-41-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6R,8aR)-rel- (CA INDEX NAME)

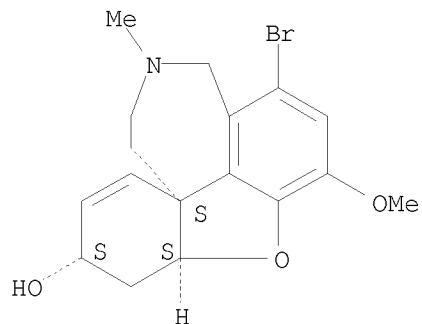
Relative stereochemistry.



RN 180854-29-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6R,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 179108-03-3P 261961-58-4P, (+)-Epigalanthamine

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

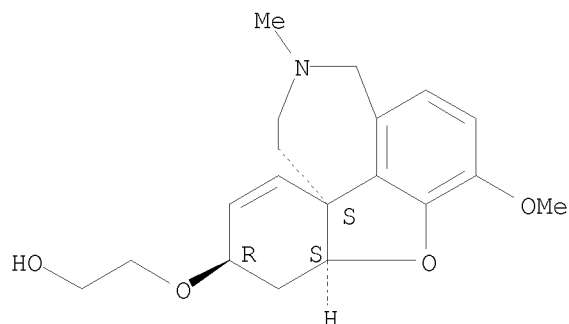
10/573,517

(preparation of derivs. of hexahydro-6H-benzofuro[3a,3,2-ef][2]benzazepine)

RN 179108-03-3 CAPLUS

CN Ethanol, 2-[[ (4aR,6S,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl]oxy]-, rel- (9CI) (CA INDEX NAME)

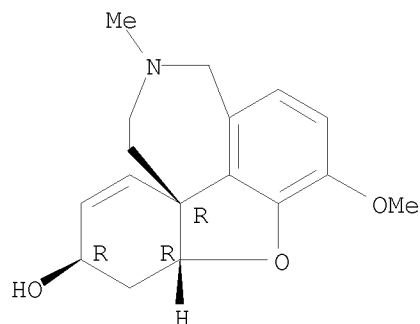
Relative stereochemistry.



RN 261961-58-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6R,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 179108-10-2P 261961-59-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of derivs. of hexahydro-6H-benzofuro[3a,3,2-ef][2]benzazepine)

RN 179108-10-2 CAPLUS

CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

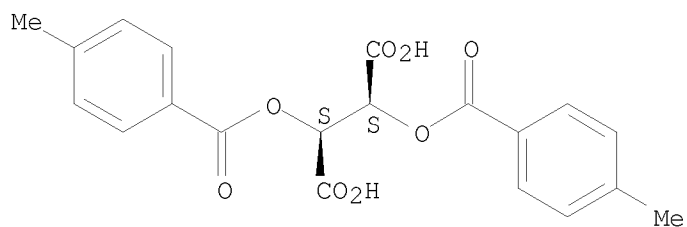
CM 1

CRN 32634-68-7

CMF C20 H18 O8

Absolute stereochemistry. Rotation (+).

10/573,517

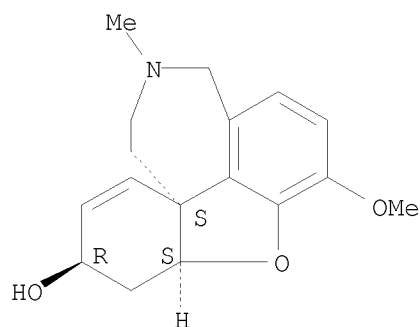


CM 2

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



RN 261961-59-5 CAPLUS

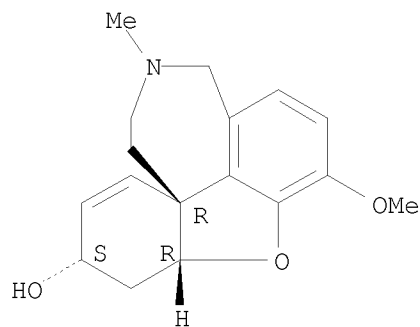
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with (4aR,6S,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 60384-53-4

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (+).



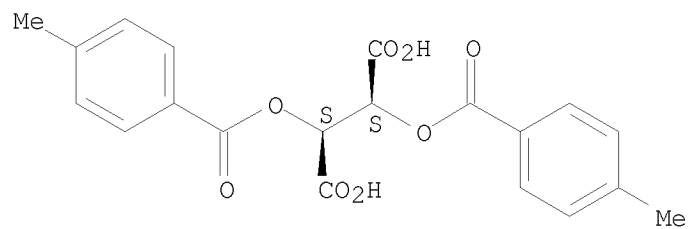
10/573,517

CM 2

CRN 32634-68-7

CMF C20 H18 O8

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT:

31

THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 50 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:613655 CAPLUS

DOCUMENT NUMBER: 131:248236

TITLE: Combination of a GABAA $\alpha$ 5 inverse agonist and an acetylcholinesterase inhibitor for treatment of neurodegenerative diseases

INVENTOR(S): Dawson, Gerard Raphael

PATENT ASSIGNEE(S): Merck Sharp &amp; Dohme Limited, UK

SOURCE: PCT Int. Appl., 13 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9947131	A2	19990923	WO 1999-GB778	19990316
WO 9947131	A3	19991104		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2323618	A1	19990923	CA 1999-2323618	19990316
AU 9928464	A	19991011	AU 1999-28464	19990316
AU 753077	B2	20021010		
EP 1061952	A2	20001227	EP 1999-909095	19990316
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO			
JP 2002506815	T	20020305	JP 2000-536371	19990316
PRIORITY APPLN. INFO.:			GB 1998-5561	A 19980316
			WO 1999-GB778	W 19990316

AB The present invention relates to a combination of an acetylcholinesterase inhibitor and an inverse agonist of the GABAA $\alpha$ 5 receptor subtype, and the use of the combination in treating neurodegenerative conditions such as Alzheimer's Disease.

IT 357-70-0, Galanthamine 1953-04-4, Galanthamine hydrobromide

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

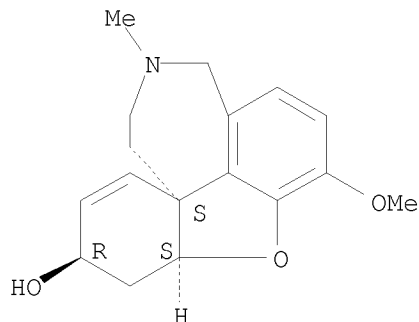
(acetylcholinesterase inhibitor; combination of a GABAA $\alpha$ 5 inverse agonist and an acetylcholinesterase inhibitor for treatment of neurodegenerative diseases)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

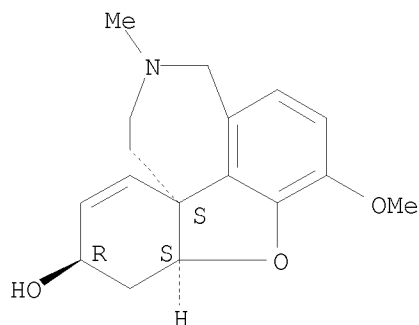
10/573,517



RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HBr

IT 5072-47-9, Galanthamine hydrochloride

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

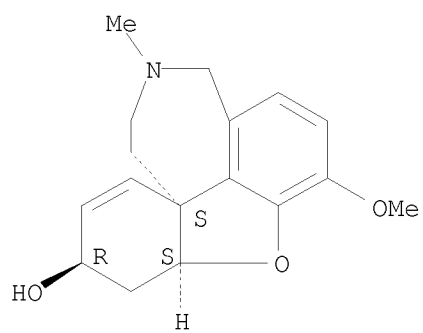
(combination of a GABAA $\alpha$ 5 inverse agonist and an acetylcholinesterase inhibitor for treatment of neurodegenerative diseases)

RN 5072-47-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



● HCl



L61 ANSWER 51 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:527463 CAPLUS

DOCUMENT NUMBER: 131:149380

TITLE: Enantiomeric resolution of galanthamine and related drugs used in anti-Alzheimer therapy by means of capillary zone electrophoresis employing derivatized cyclodextrin selectors

AUTHOR(S): Rizzi, Andreas; Schuh, Rudolf; Bruckner, Andrea; Cvitkovich, Beate; Kremser, Leopold; Jordis, Ulrich; Frohlich, Johannes; Kuenburg, Bernhard; Czollner, Laszlo

CORPORATE SOURCE: Institute of Analytical Chemistry, University of Vienna, Vienna, A-1090, Austria

SOURCE: Journal of Chromatography, B: Biomedical Sciences and Applications (1999), 730(2), 167-175  
CODEN: JCBBEP; ISSN: 0378-4347

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An anal. assay is presented for the determination of the enantiomeric composition of

galanthamine and related synthetic and natural compds. (-)-Galanthamine is isolated from Galanthus nivalis and is used in this optical pure form in the therapy of Alzheimer's disease. Recent efforts for a total synthesis of (-)-galanthamine is connected with the need for a fast and reliable assay for the determination of the optical purity of the end product,

as

well as for optimizing and controlling the final steps in total synthesis particularly the asym. transformation of narwedine. The enantiomeric resolution of these compds. was obtained employing a capillary electrophoretic system with  $\beta$ -cyclodextrin derived chiral selectors. With the proposed system a number of galanthamine and narwedine derived analogous compds. could be separated, including 1-bromo- and N-alkyl-substituted compds.

IT 357-70-0, (-)-Galanthamine 198987-71-2

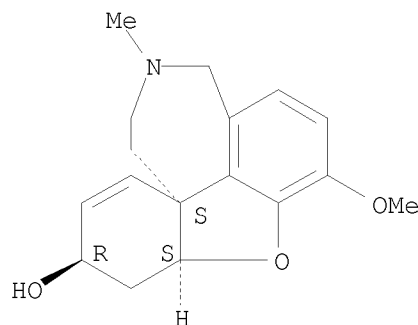
RL: ANT (Analyte); ANST (Analytical study)

(resolution of galanthamine and narwedine derived drugs by capillary zone electrophoresis employing derivatized cyclodextrin selectors)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

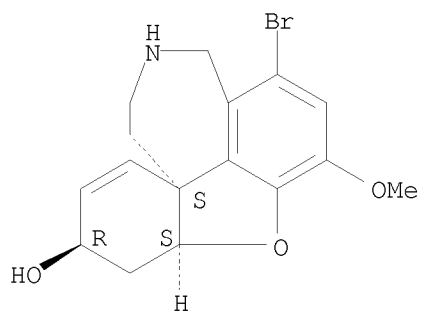


10/573,517

RN 198987-71-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT:

10

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 52 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:297309 CAPLUS

DOCUMENT NUMBER: 130:332904

TITLE: Method for treatment of disorders of attention with galanthamine, lycoramine, and related compounds

INVENTOR(S): Davis, Bonnie M.

PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 9 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

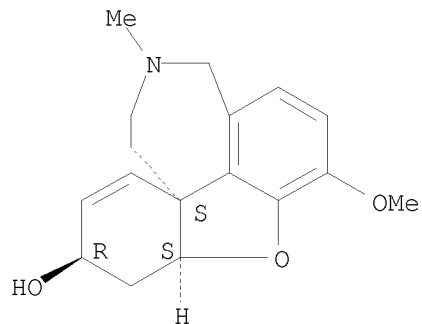
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9921561	A1	19990506	WO 1998-US22777	19981027
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9912820	A	19990517	AU 1999-12820	19981027
PRIORITY APPLN. INFO.:			US 1997-62769P	P 19971029
			WO 1998-US22777	W 19981027
AB	Disorders of attention (e.g. attention deficit disorder or Tourette's syndrome) are treated by administering a safe and ED of an active compound selected from galanthamine, lycoramine, O-desmethylgalanthamine, O-desmethyllycoramine, or an ester, ether, carbamate or carbonate of one of these compds., or a pharmaceutically acceptable salt thereof.			
IT	357-70-0, Galanthamine 357-70-0D, Galanthamine, esters, ethers, carbamates, and carbonates 1953-04-4, Galanthamine hydrobromide 5072-47-9, Galanthamine hydrochloride 121326-58-7 121326-59-8 224169-27-1 224169-29-3 224169-30-6 224169-31-7 224169-32-8			
	RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			
	(galanthamine, lycoramine, and related compds. for treatment of attention disorders)			
RN	357-70-0 CAPLUS			
CN	6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)			

Absolute stereochemistry. Rotation (-).

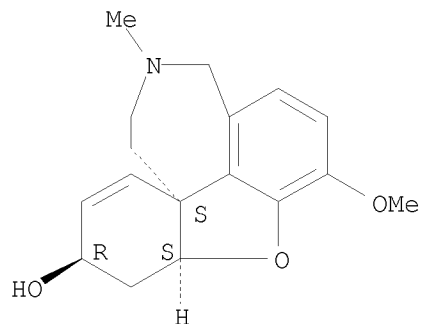
10/573,517



RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

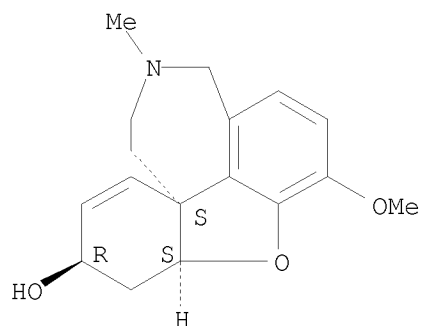
Absolute stereochemistry. Rotation (-).



RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



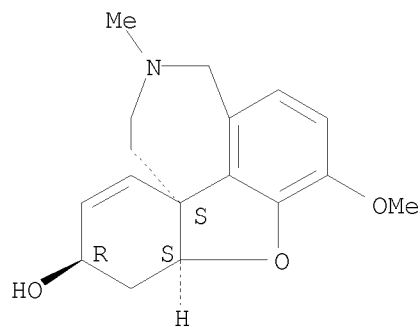
● HBr

10/573,517

RN 5072-47-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

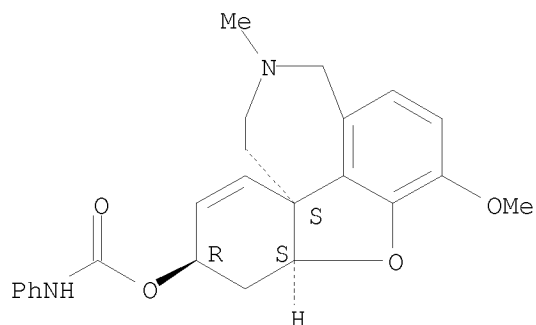


● HCl

RN 121326-58-7 CAPLUS

CN Galanthamine, phenylcarbamate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

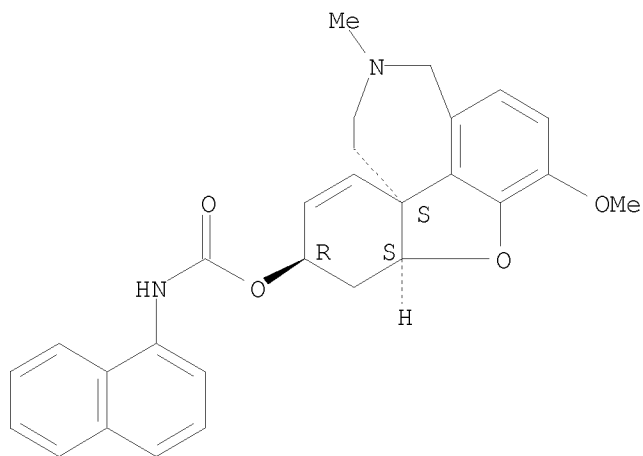


RN 121326-59-8 CAPLUS

CN Carbamic acid, 1-naphthalenyl-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

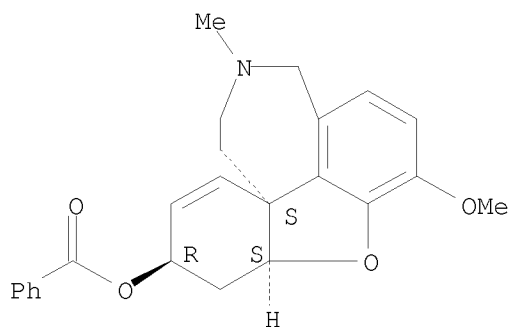
10/573,517



RN 224169-27-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 6-benzoate, (4aS,6R,8aS)- (CA INDEX NAME)

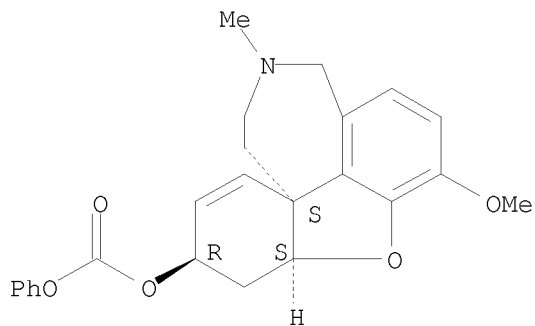
Absolute stereochemistry.



RN 224169-29-3 CAPLUS

CN Carbonic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

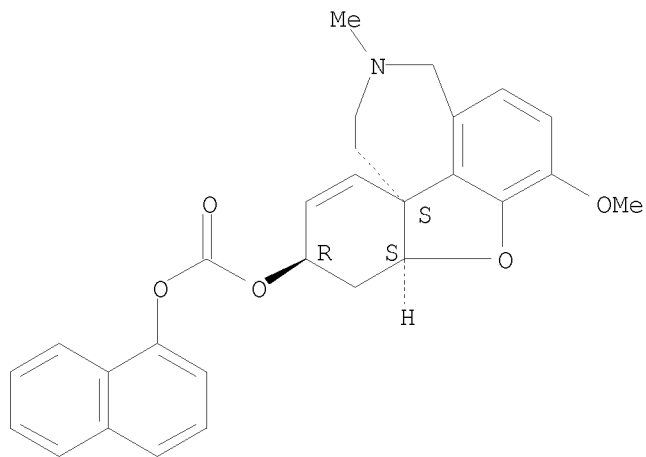


10/573,517

RN 224169-30-6 CAPLUS

CN Carbonic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl 1-naphthalenyl ester (CA INDEX NAME)

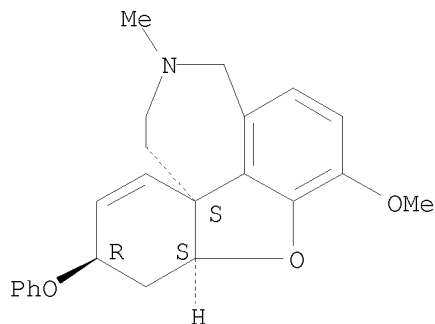
Absolute stereochemistry.



RN 224169-31-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6-phenoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

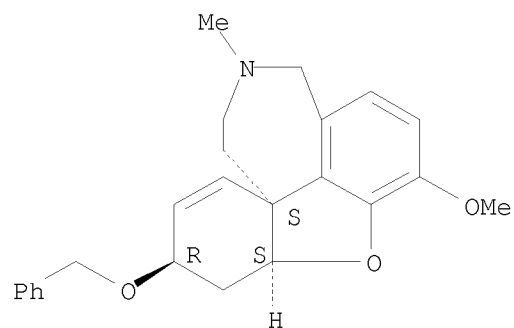


RN 224169-32-8 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepine, 3,4,8a,9-tetrahydro-7-methoxy-3-methyl-10-(phenylmethoxy)-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517



REFERENCE COUNT:

1

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L61 ANSWER 53 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:252855 CAPLUS

DOCUMENT NUMBER: 131:111271

TITLE: Further studies on Nivalin P-induced changes in muscle fiber membrane processes

AUTHOR(S): Radicheva, N.; Mileva, K.; Stoyanova, N.; Georgieva, B.

CORPORATE SOURCE: Institute of Biophysics, Bulgarian Academy of Sciences, Sofia, Bulg.

SOURCE: Methods and Findings in Experimental and Clinical Pharmacology (1999), 21(1), 5-10

CODEN: MFEPDX; ISSN: 0379-0355

PUBLISHER: Prous Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Nivalin P, composed of Nivalin (galanthamine hydrobromide) and Pimadin (4-aminopyridine hydrochloride), was applied extracellularly to isolated skeletal muscle fibers during prolonged activity (fatiguing) to better understand the effects of the drug on membrane ionic processes. Changes in intracellular action potential (ICAP) and twitch (Tw) parameters were monitored from treated and untreated fibers during uninterrupted activity (endurance time, ET) produced by repetitive stimulation every 200 ms for 3 min. Nivalin P-induced a shortening of the ET, drastic changes in repolarization of the ICAP corresponding to changes in neg. after-potential and falling area and an initial increase of the Tw amplitude and duration. These results suggest that Nivalin P: (i) inhibits the Na<sup>+</sup>,K<sup>+</sup>-pump due to nonspecific reduction of Na<sup>+</sup> influx, stimulates the Na<sup>+</sup>-Ca<sup>2+</sup> exchanger and inhibits K<sup>+</sup> conductance: (ii) increases Ca<sup>2+</sup> release and delays Ca<sup>2+</sup> uptake under sufficient depolarization. It was concluded that fatigue develops faster in the presence of Nivalin P.

IT 53321-09-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(Nivalin P-induced changes in muscle fiber membrane processes)

RN 53321-09-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

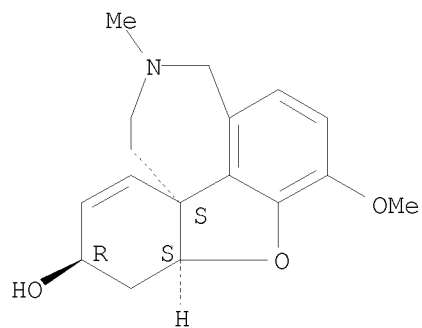
CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).

10/573,517

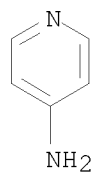


● HBr

CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H



● HCl

REFERENCE COUNT:

25

THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 54 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:737271 CAPLUS

DOCUMENT NUMBER: 130:104790

TITLE: Potent acetylcholinesterase inhibitors: design, synthesis, and structure-activity relationships of bis-interacting ligands in the galanthamine series

AUTHOR(S): Mary, Aude; Renko, Dolor Zafiarisoa; Guillou, Catherine; Thal, Claude

CORPORATE SOURCE: Institut de Chimie des Substances Naturelles, C.N.R.S., Gif-sur-Yvette, 91198, Fr.

SOURCE: Bioorganic &amp; Medicinal Chemistry (1998), 6(10), 1835-1850

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB New galanthamine derivs., especially bis-interacting ligands were prepared in order to interact with the catalytic and the peripheral sites of acetylcholinesterase (AChE). The synthesis, the anticholinesterase activities, and the structure-activity relationships of bis-interacting ligands are reported. Some compds. were found to be more potent than galanthamine and tacrine in inhibiting AChE.

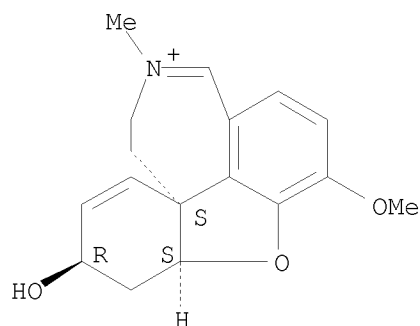
IT 219721-49-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (design, synthesis, and structure-activity relationships of galanthamine derivs. as acetylcholinesterase inhibitors)

RN 219721-49-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, iodide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

● I<sup>-</sup>

IT 187795-99-9P 187796-00-5P 187796-02-7P

187796-03-8P 187796-04-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

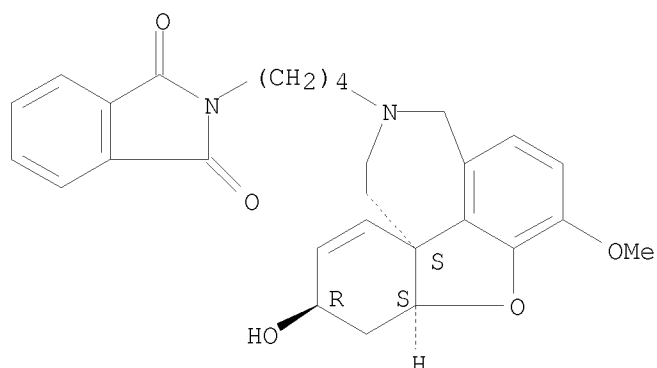
10/573,517

(design, synthesis, and structure-activity relationships of  
galanthamine derivs. as acetylcholinesterase inhibitors)

RN 187795-99-9 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]butyl]-(CA INDEX NAME)

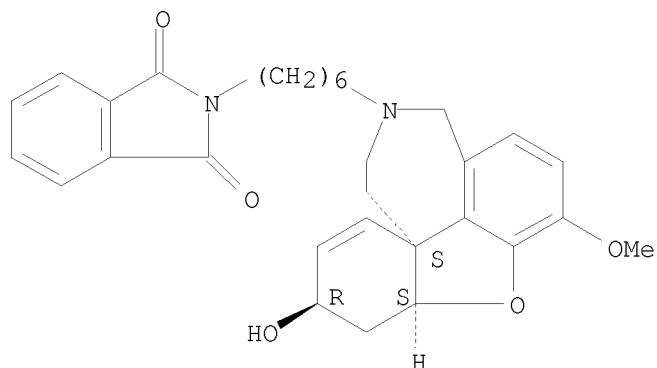
Absolute stereochemistry.



RN 187796-00-5 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]-(CA INDEX NAME)

Absolute stereochemistry.

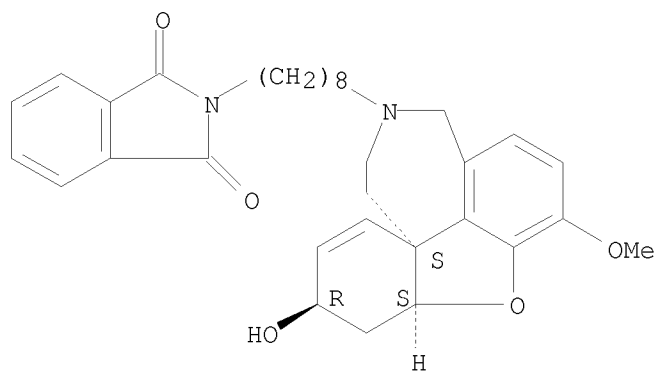


RN 187796-02-7 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[8-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]octyl]-(CA INDEX NAME)

Absolute stereochemistry.

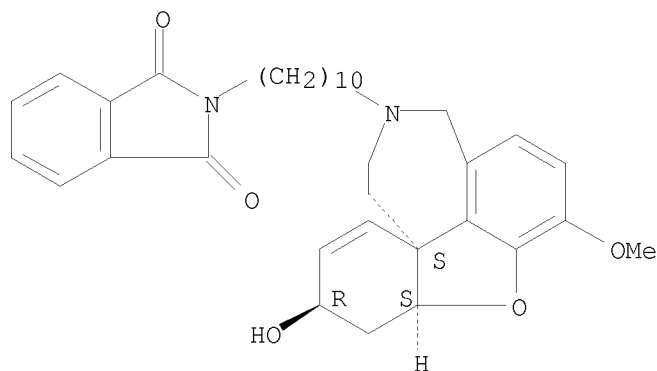
10/573,517



RN 187796-03-8 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[10-[(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]decyl]- (CA INDEX NAME)

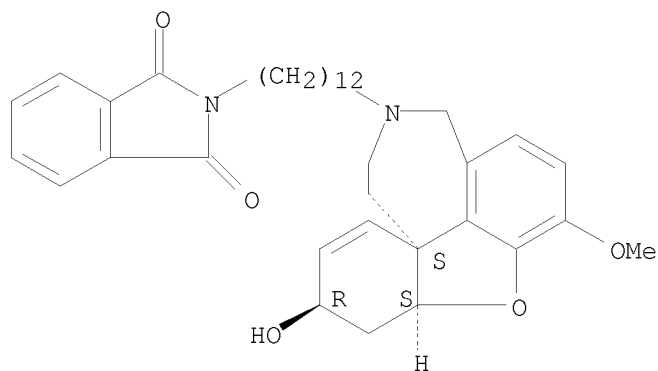
Absolute stereochemistry.



RN 187796-04-9 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[12-[(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]dodecyl]- (CA INDEX NAME)

Absolute stereochemistry.



IT 219721-51-4P 219721-53-6P 219721-54-7P  
 219721-57-0P 219721-60-5P 219721-61-6P  
 219721-63-8P 219721-64-9P 219721-65-0P  
 219721-66-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (design, synthesis, and structure-activity relationships of galanthamine derivs. as acetylcholinesterase inhibitors)

RN 219721-51-4 CAPLUS

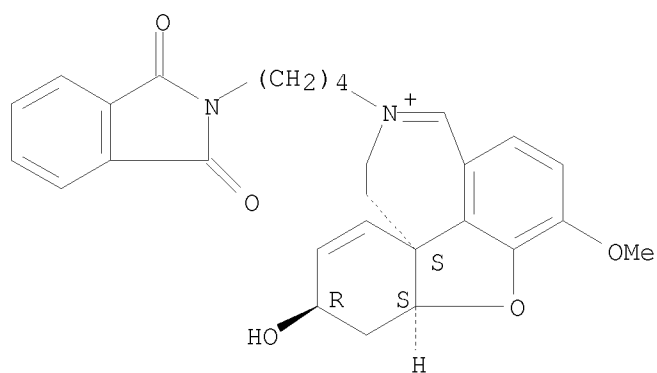
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-[4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)butyl]-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aS,6R,8aS)-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 219721-50-3

CMF C28 H29 N2 O5

Absolute stereochemistry.

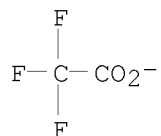


CM 2

CRN 14477-72-6

CMF C2 F3 O2

10/573,517

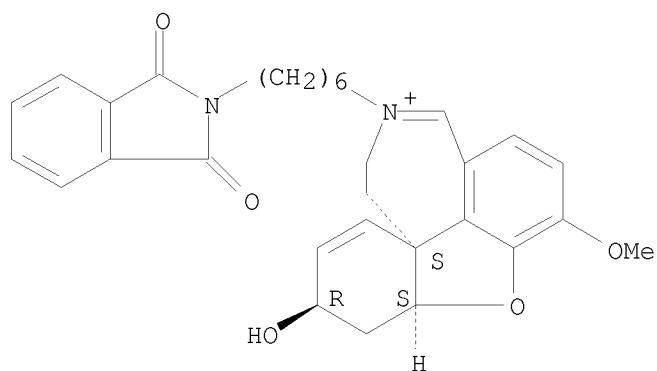


RN 219721-53-6 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 3-[6-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)hexyl]-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, (8aS,10R,12aS)-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

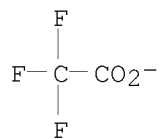
CRN 219721-52-5  
CMF C30 H33 N2 O5

Absolute stereochemistry.



CM 2

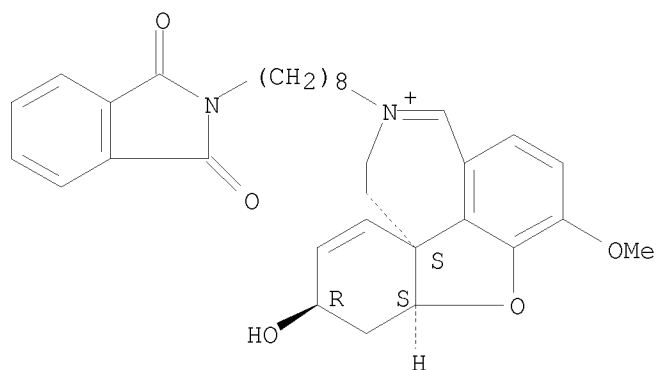
CRN 14477-72-6  
CMF C2 F3 O2



RN 219721-54-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 11-[8-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)octyl]-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

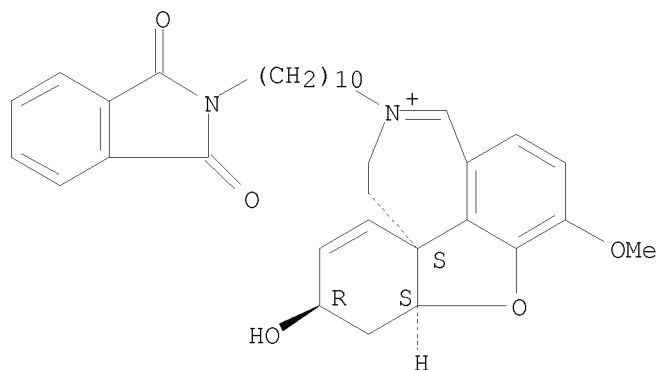
10/573,517



● Br<sup>-</sup>

RN 219721-57-0 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 2-[10-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)decyl]-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, bromide (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



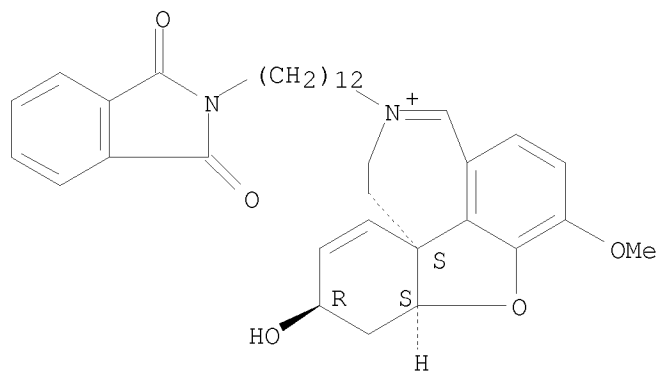
● Br<sup>-</sup>

RN 219721-60-5 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 3-[12-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)dodecyl]-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, bromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.



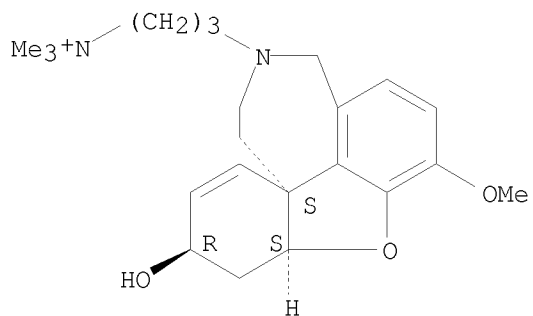
10/573,517



● Br<sup>-</sup>

RN 219721-61-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-propanaminium,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N,N,N-trimethyl-, bromide (1:1),  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

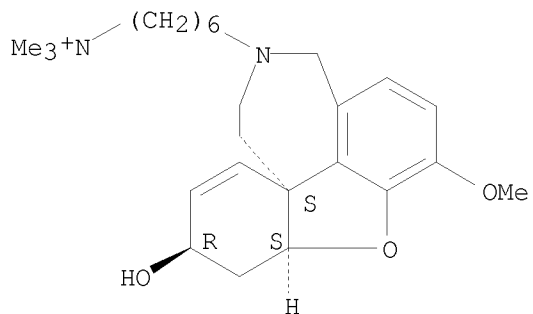


● Br<sup>-</sup>

RN 219721-63-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-hexanaminium,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-N,N,N-trimethyl-, bromide (1:1),  
(4aS,6R,8aS)- (CA INDEX NAME)

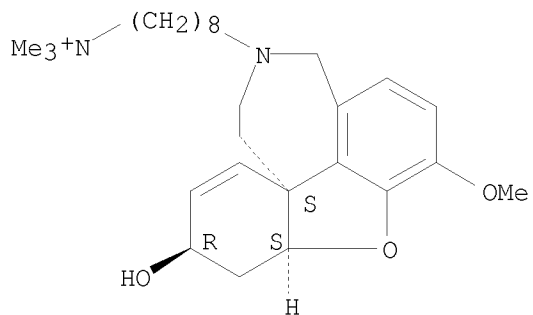
Absolute stereochemistry.

10/573,517



RN 219721-64-9 CAPLUS  
CN 3H-Benzofuro[3a,3,2-ef][2]benzazepine-8(9H)-octanaminium,  
1a,2,6,7-tetrahydro-3-hydroxy-12-methoxy-N,N,N-trimethyl-, bromide (1:1),  
(1aS,3R,5aS)- (CA INDEX NAME)

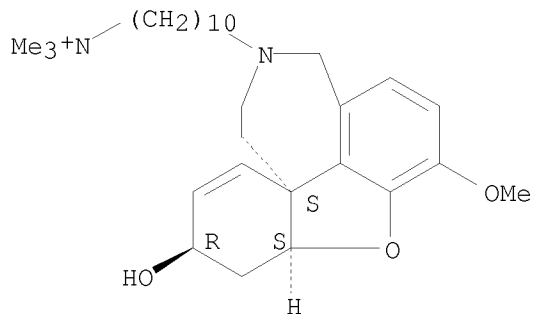
Absolute stereochemistry.



RN 219721-65-0 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-decanaminium,  
1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-N,N,N-trimethyl-, bromide (1:1),  
(8aS,10R,12aS)- (CA INDEX NAME)

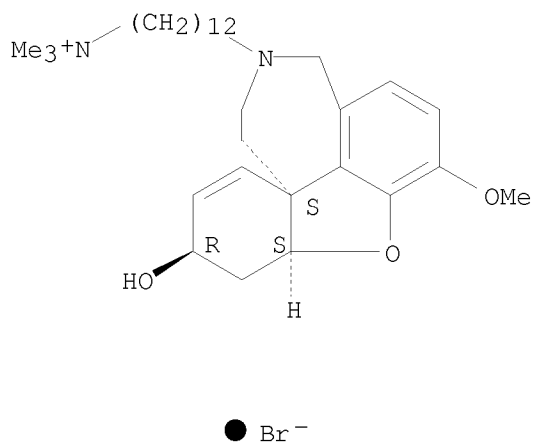
Absolute stereochemistry.

10/573,517



RN 219721-66-1 CAPLUS  
CN 3H-Benzofuro[3a,3,2-ef][2]benzazepine-8(9H)-dodecanaminium,  
1a,2,6,7-tetrahydro-3-hydroxy-12-methoxy-N,N,N-trimethyl-, bromide (1:1),  
(1aS,3R,5aS)- (CA INDEX NAME)

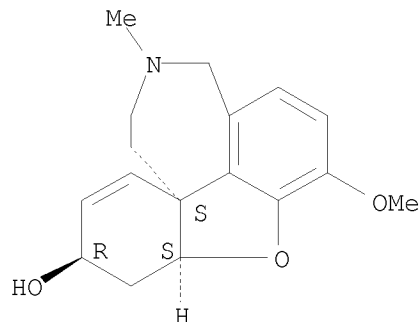
Absolute stereochemistry.



IT 357-70-0, Galanthamine 41303-74-6, Norgalanthamine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(design, synthesis, and structure-activity relationships of  
galanthamine derivs. as acetylcholinesterase inhibitors)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

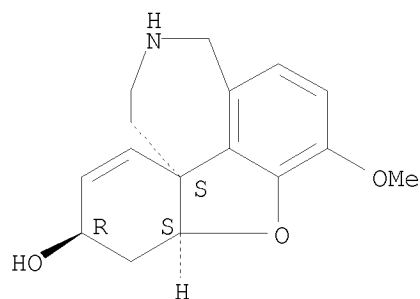
10/573,517



RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 187796-01-6P 219721-85-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

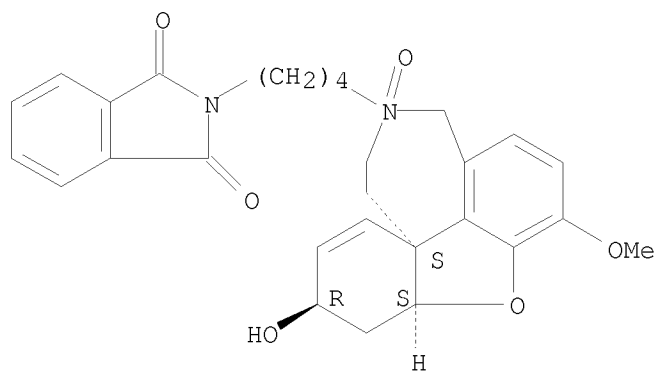
(design, synthesis, and structure-activity relationships of galanthamine derivs. as acetylcholinesterase inhibitors)

RN 187796-01-6 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-3-oxido-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

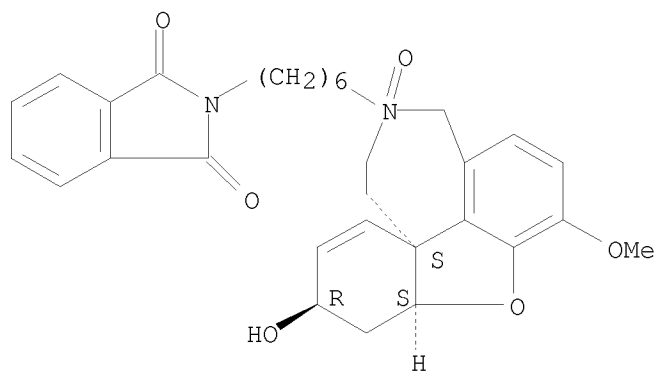
10/573,517



RN 219721-85-4 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[6-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-3-oxido-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]hexyl]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

20

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 55 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:592346 CAPLUS  
 DOCUMENT NUMBER: 129:302738  
 ORIGINAL REFERENCE NO.: 129:61759a,61762a  
 TITLE: Dynamic diastereomeric salt resolution of narwedine and its transformation to (-)-galanthamine  
 AUTHOR(S): Chaplin, David A.; Johnson, Nicholas B.; Paul, Jane M.; Potter, Gerard A.  
 CORPORATE SOURCE: Chirotech Technology Ltd., Chiroscience R&D Ltd., Cambridge, CB4 4WE, UK  
 SOURCE: Tetrahedron Letters (1998), 39(37), 6777-6780  
 CODEN: TELEAY; ISSN: 0040-4039  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 129:302738

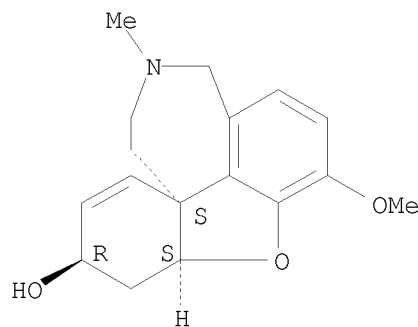
AB Racemic narwedine may be resolved by means of a dynamic diastereomeric salt formation using di-p-toluoyl-D-tartaric acid. Both the 1:1 and 2:1 salts are formed in excellent yields and diastereomeric excesses. These salts are reduced in a highly diastereoselective and chemoselective manner to give (-)-galanthamine.

IT 5072-47-9P, (-)-Galanthamine hydrochloride  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (dynamic diastereomeric salt resolution of narwedine and its transformation to (-)-galanthamine)

RN 5072-47-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 56 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:376477 CAPLUS

DOCUMENT NUMBER: 129:109243

ORIGINAL REFERENCE NO.: 129:22445a,22448a

TITLE: One-Step Conversion of Galanthamine to Lycoraminone: A Novel Hydride-Transfer Reaction

AUTHOR(S): Lee, Thomas B. K.; Goehring, Keith E.; Ma, Zhenkun

CORPORATE SOURCE: Hoechst Marion Roussel Inc., Bridgewater, NJ, 08807-0800, USA

SOURCE: Journal of Organic Chemistry (1998), 63(13), 4535-4538  
CODEN: JOCEAH; ISSN: 0022-3263

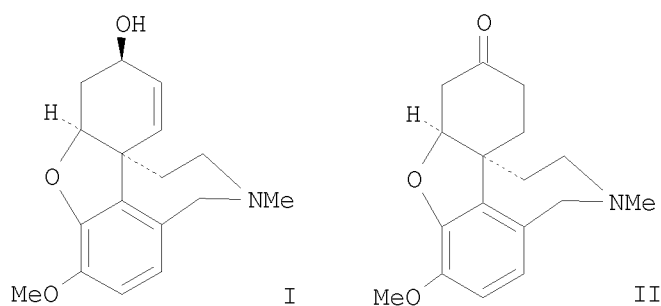
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 129:109243

GI



AB Galanthamine (I) was converted to lycoraminone (II) in a single step through a novel intermol. hydride-transfer reaction.

IT 209735-27-3P, 1-Deutero-1-epi-galanthamine

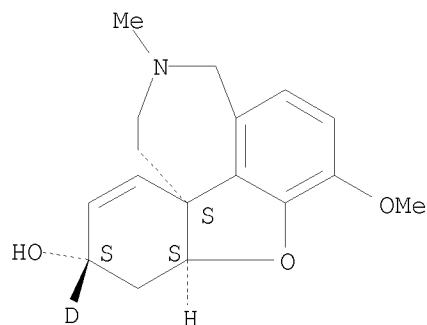
RL: BYP (Byproduct); PREP (Preparation)

(novel hydride-transfer in a one-step conversion of galanthamine to lycoraminone)

RN 209735-27-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-d-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6S,8aS)- (9CI) (CA INDEX NAME)

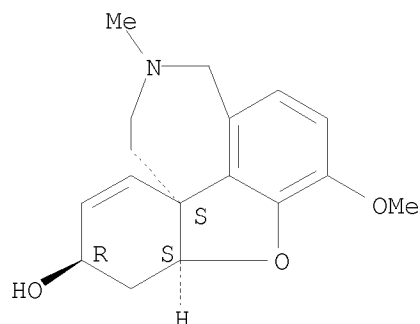
Absolute stereochemistry.



10/573,517

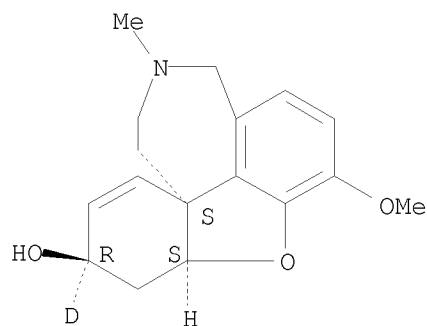
IT 357-70-0, Galanthamine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(novel hydride-transfer in a one-step conversion of galanthamine to lycoraminone)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 209735-28-4P, 1-Deuterogalanthamine  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(novel hydride-transfer in a one-step conversion of galanthamine to lycoraminone)  
RN 209735-28-4 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-d-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

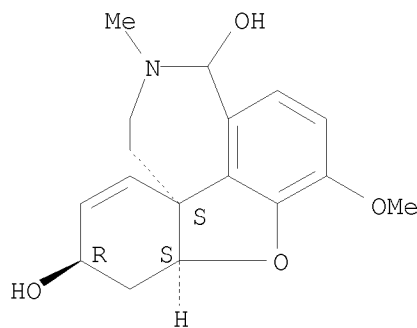


L61 ANSWER 57 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:355716 CAPLUS  
 DOCUMENT NUMBER: 129:136331  
 ORIGINAL REFERENCE NO.: 129:27876h,27877a  
 TITLE: Unexpected hydroxylation of galanthamine during the course of a Polonovski-Potier reaction  
 AUTHOR(S): Renko, Dolor; Mary, Aude; Guillou, Catherine; Potier, Pierre; Thal, Claude  
 CORPORATE SOURCE: Inst. Chimie Substances Naturelles, CNRS, Gif-sur-Yvette, 91198, Fr.  
 SOURCE: Tetrahedron Letters (1998), 39(24), 4251-4254  
 CODEN: TELEAY; ISSN: 0040-4039  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 129:136331

AB Galanthamine N-oxide undergoes a Polonovski-Potier reaction to give the iminium salt and the unexpected 8-hydroxygalanthamine. An intramol. oxygen transfer is proposed to explain hydroxylation of the aromatic nucleus.  
 IT 210474-58-1P  
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)  
 (unexpected hydroxylation of galanthamine during course of a Polonovski-Potier reaction)  
 RN 210474-58-1 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-6,12-diol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

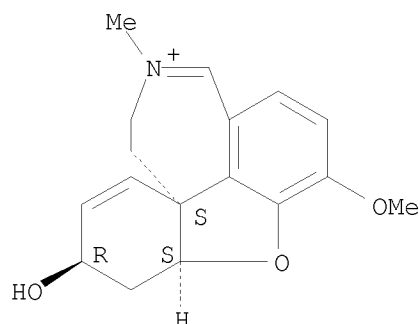


IT 210474-62-7P  
 RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)  
 (unexpected hydroxylation of galanthamine during course of a Polonovski-Potier reaction)  
 RN 210474-62-7 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-11-methyl-, (4aS,6R,8aS)-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)  
 CM 1  
 CRN 210474-61-6

10/573,517

CMF C17 H20 N O3

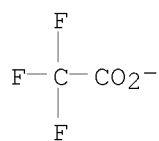
Absolute stereochemistry. Rotation (-).



CM 2

CRN 14477-72-6

CMF C2 F3 O2



IT 1953-04-4, Galanthamine hydrobromide

RL: RCT (Reactant); RACT (Reactant or reagent)

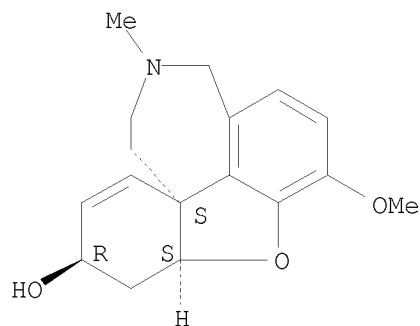
(unexpected hydroxylation of galanthamine during course of a  
Polonovski-Potier reaction)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-  
methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

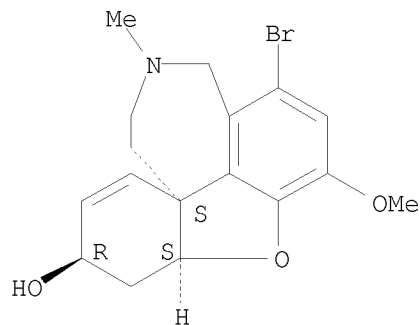
10/573,517



● HBr

IT 183626-04-2P 210474-66-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(unexpected hydroxylation of galanthamine during course of a  
Polonovski-Potier reaction)  
RN 183626-04-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-  
hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

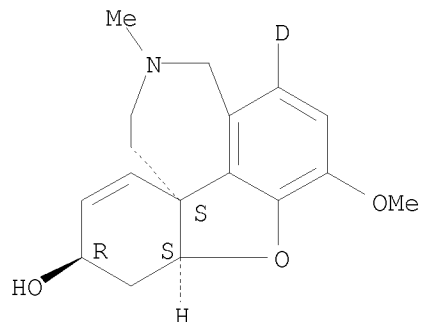
Absolute stereochemistry. Rotation (-).



RN 210474-66-1 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-1-d-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

10/573,517



IT 210474-71-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(unexpected hydroxylation of galanthamine during course of a  
Polonovski-Potier reaction)

RN 210474-71-8 CAPLUS

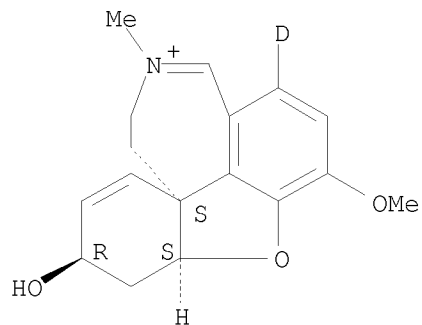
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium-1-d, 4a,5,9,10-tetrahydro-6-  
hydroxy-3-methoxy-11-methyl-, (4aS,6R,8aS)-, salt with trifluoroacetic  
acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 210474-70-7

CMF C17 H19 D N O3

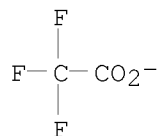
Absolute stereochemistry.



CM 2

CRN 14477-72-6

CMF C2 F3 O2



10/573,517

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 58 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:737998 CAPLUS

DOCUMENT NUMBER: 128:72557

ORIGINAL REFERENCE NO.: 128:14111a

TITLE: Application of immunoenzymic technique in determination of galanthamine in two *Pancreatium* species

AUTHOR(S): Sarg, Taha M.; Zenk, Meinhart H.; El-Dahmy, Sameeh I.; Abdel-Ghani, Afaf E.; Abou-Hashem, Maged M.

CORPORATE SOURCE: Department of Pharmacognosy, Faculty of Pharmacy, University of Zagazig, Egypt

SOURCE: Zagazig Journal of Pharmaceutical Sciences (1996), 5(2), 99-104

CODEN: ZJPSEV; ISSN: 1110-5089

PUBLISHER: University of Zagazig, Faculty of Pharmacy

DOCUMENT TYPE: Journal

LANGUAGE: English

AB ELISA was established to qual. and quant. determine galanthamine in the alc. extract of *Pancreatium foetidum* Pomel bulbs and in the callus culture of *P. arabicum* Sick. The amount of galanthamine was 168 ng/g dry weight of bulbs and 314 ng/g dry weight of the callus. The measuring range for galanthamine extended from 0.1-100 ng per assay. The least amount to be detected was 0.01 ng and the recovery was 98±1.8%.

IT 357-70-0, Galanthamine

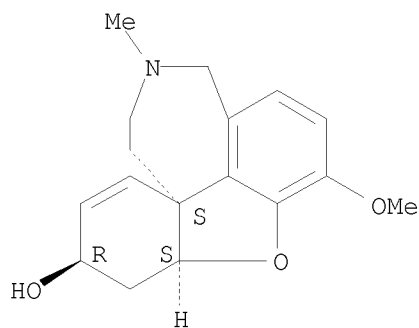
RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)

(immunoenzymic assay of galanthamine in two *Pancreatium* species)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 127414-09-9DP, Galanthamine-2-O-hemisuccinate, reaction product with serum albumin

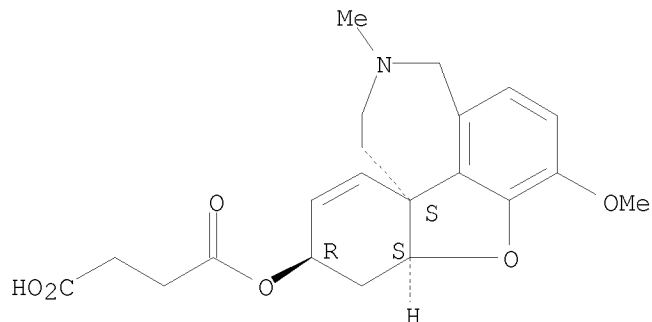
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses) (immunoenzymic assay of galanthamine in two *Pancreatium* species)

RN 127414-09-9 CAPLUS

CN Galanthamine, hydrogen butanedioate (ester) (9CI) (CA INDEX NAME)

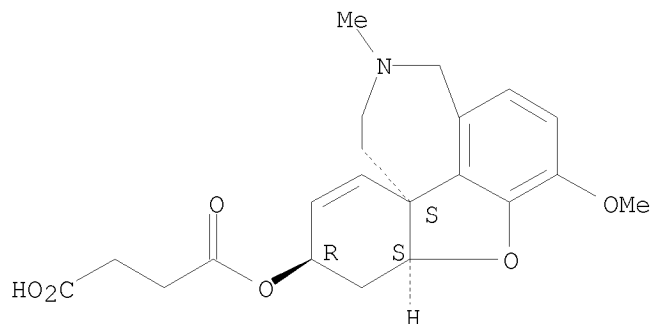
Absolute stereochemistry.

10/573,517



IT 127414-09-9P, Galanthamine-2-O-hemisuccinate  
RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(immunoenzymic assay of galanthamine in two *Pancreaticum* species)  
RN 127414-09-9 CAPLUS  
CN Galanthamine, hydrogen butanedioate (ester) (9CI) (CA INDEX NAME)

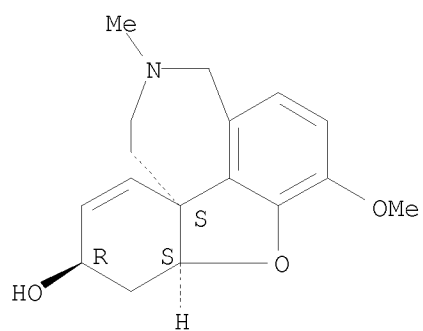
Absolute stereochemistry.



IT 1953-04-4, Galanthamine hydrobromide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(immunoenzymic assay of galanthamine in two *Pancreaticum* species)  
RN 1953-04-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



● HBr

REFERENCE COUNT:

24

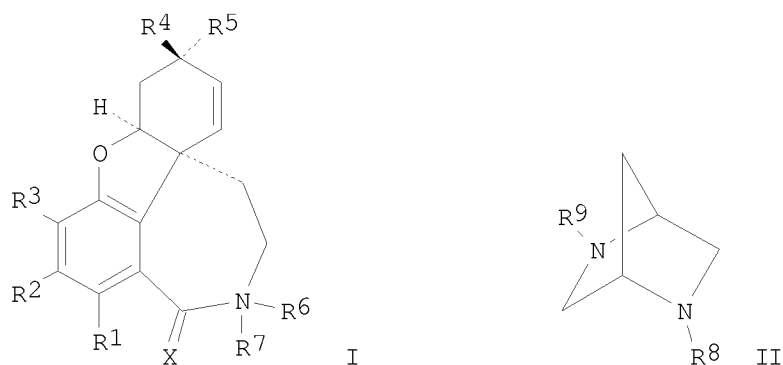
THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L61 ANSWER 59 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:717921 CAPLUS  
 DOCUMENT NUMBER: 128:13368  
 ORIGINAL REFERENCE NO.: 128:2609a  
 TITLE: New benzazepine derivatives, medicaments containing  
 the same and their use to prepare medicaments  
 INVENTOR(S): Czollner, Laszlo; Frohlich, Johannes; Jordis, Ulrich;  
 Kuenburg, Bernhard  
 PATENT ASSIGNEE(S): Sanochemia Ltd., Malta  
 SOURCE: PCT Int. Appl., 136 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9740049	A1	19971030	WO 1997-AT74	19970421
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AT 9600716	A	19971015	AT 1996-716	19960419
AT 403803	B	19980525		
AU 9724985	A	19971112	AU 1997-24985	19970421
EP 897387	A1	19990224	EP 1997-916263	19970421
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, FI				
IN 1997CA00691	A	20050311	IN 1997-CA691	19970421
PL 189834	B1	20050930	PL 1997-329411	19970421
RO 120136	B1	20050930	RO 1998-1487	19970421
PL 190032	B1	20051031	PL 1997-361697	19970421
EP 1757608	A1	20070228	EP 2006-25028	19970421
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IT, LI, LU, NL, PT, SE				
TW 224595	B	20041201	TW 1997-86106195	19970509
BG 64560	B1	20050729	BG 1998-102836	19981012
NO 9804852	A	19981116	NO 1998-4852	19981016
NO 324211	B1	20070910		
US 20030092700	A1	20030515	US 1999-242339	19990211
US 6638925	B2	20031028		
US 20040067974	A1	20040408	US 2003-647283	20030826
US 7101890	B2	20060905		
PRIORITY APPLN. INFO.:			AT 1996-716	A 19960419
			EP 1997-916263	A3 19970421
			WO 1997-AT74	W 19970421
			US 1999-242339	A3 19990211
OTHER SOURCE(S):	MARPAT 128:13368			
GI				



AB The synthesis of benzofuro[3a,3,2,ef][2]benzazepines (I) [R1,R2 = H, halo, CN, NC, OH, SH, SO3H, NH2, CF3, (un)substituted alkyl, (un)substituted alkoxy, (un)substituted aryl, (un)substituted aryloxy; R3 = OH, OMe; R4,R5 = H2, O, substituted O, (un)substituted alkyl, (un)substituted aryl, (un)substituted alkenyl, (un)substituted alkynyl, (un)substituted hydrazone, (un)substituted oxime; X = H2, O] and diazabicyclo[2.2.1]heptanes (II) [R8 = CH2Ph, 4-MeC6H4SO2, H, (un)substituted alkyl, Me3CO2C; R9 = (un)substituted Ph, CH2Ph, CHPh2, Me3CO2C] are described. Thus, I (R1 = Br, R2 = H, R3 = OMe, R4 = OH, R5 = H, R6 = H, X = H2) (III) was prepared by tartrate resolution of (±)-N-demethyl-8-bromogalanthamine. III in in vitro study showed an IC50 of >150 in  $\mu\text{mol}$  for the inhibition of acetylcholine esterase. Also disclosed are medicaments which contain compds. of formulas (I) and/or (II) and may be successfully used for treating Alzheimer disease and related demential states, as well as the Langdon-Down syndrome.

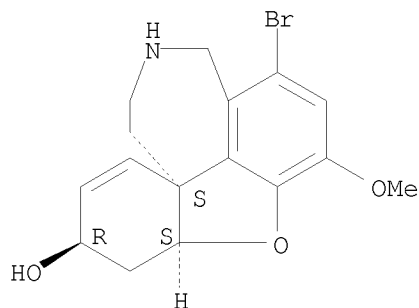
IT 179107-99-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of benzazepine galanthamine analogs and diazabicycloheptanes for use in treatment of dementia)

RN 179107-99-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



10/573,517

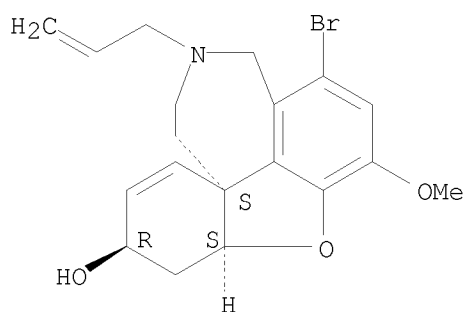
IT 198988-00-0P 198988-02-2P 198988-08-8P  
198988-09-9P 198988-11-3P 198988-12-4P  
198988-16-8P 198988-17-9P 198988-18-0P  
198988-21-5P 198988-32-8P 198988-33-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of benzazepine galanthamine analogs and diazabicycloheptanes for use in treatment of dementia)

RN 198988-00-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propen-1-yl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

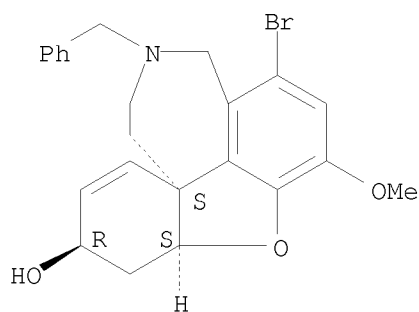
Relative stereochemistry.



RN 198988-02-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-(phenylmethyl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

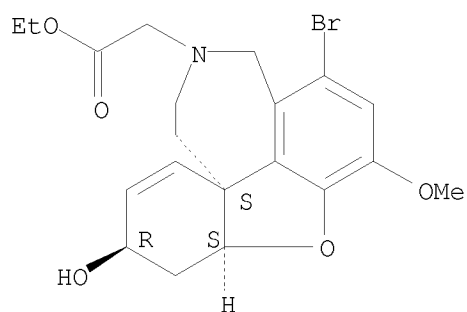


RN 198988-08-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetic acid, 1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, ethyl ester, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

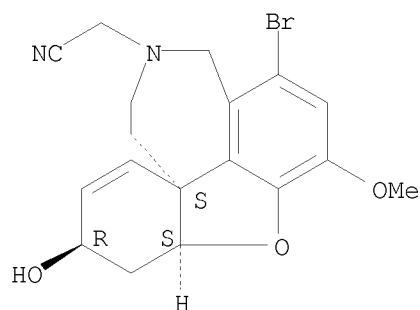
10/573,517



RN 198988-09-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetonitrile,  
1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA  
INDEX NAME)

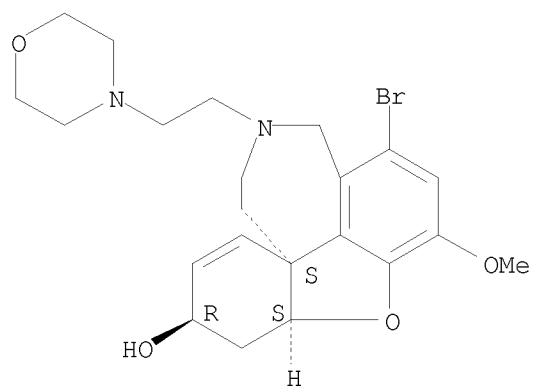
Relative stereochemistry.



RN 198988-11-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-  
hexahydro-3-methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aR,6S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.

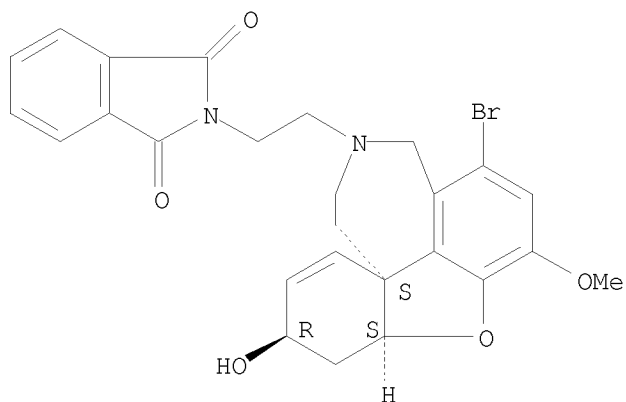


RN 198988-12-4 CAPLUS

10/573,517

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[(4aR,7S,8aR)-12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]ethyl]-, rel- (CA INDEX NAME)

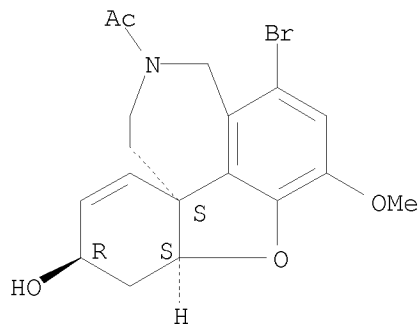
Relative stereochemistry.



RN 198988-16-8 CAPLUS

CN Ethanone, 1-[(4aR,6S,8aR)-1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

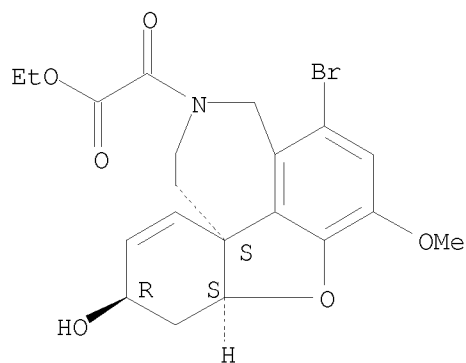


RN 198988-17-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-acetic acid, 5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy- $\alpha$ -oxo-, ethyl ester, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

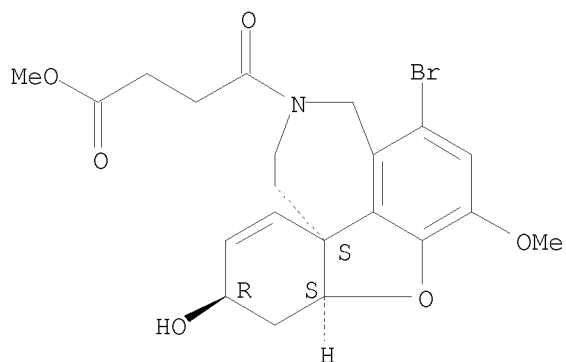
10/573,517



RN 198988-18-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-butanoic acid,  
1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-γ-oxo-, methyl  
ester, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

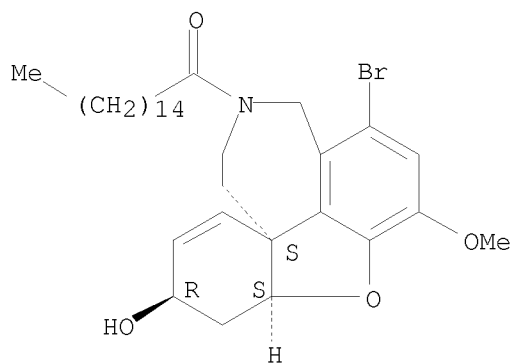


RN 198988-21-5 CAPLUS

CN 1-Hexadecanone, 1-[(8aR,10S,12aR)-5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-  
methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]-, rel- (CA INDEX  
NAME)

Relative stereochemistry.

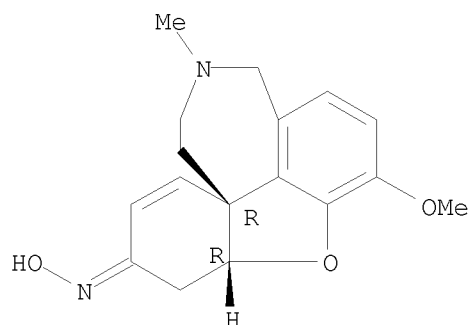
10/573,517



RN 198988-32-8 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, oxime, (8aR,12aR)- (CA INDEX NAME)

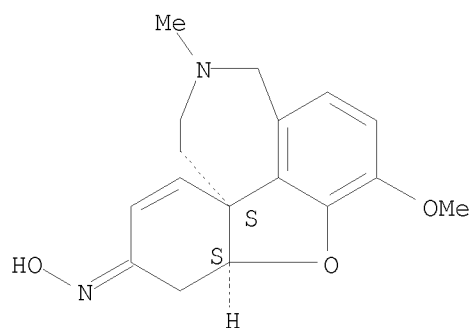
Absolute stereochemistry.  
Double bond geometry unknown.



RN 198988-33-9 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, oxime, (8aS,12aS)- (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



IT 357-70-0P 41303-52-0P 179107-98-3P,

(±)-8-Bromogalanthamine 179239-41-9P 180854-29-9P,  
 (±)-8-Bromo-3-epigalanthamine 183626-04-2P,  
 (-)-8-Bromogalanthamine 198987-71-2P 198987-72-3P  
 198987-75-6P 198987-76-7P 198987-77-8P  
 198987-78-9P 198987-79-0P 198987-80-3P  
 198987-81-4P 198987-82-5P 198987-83-6P  
 198987-84-7P 198987-85-8P 198987-86-9P  
 198987-87-0P 198987-88-1P 198987-89-2P  
 198987-90-5P 198987-91-6P 198987-92-7P  
 198987-93-8P 198987-94-9P 198987-95-0P  
 198987-96-1P 198987-97-2P 198987-98-3P  
 198988-03-3P 198988-05-5P 198988-06-6P  
 198988-07-7P 198988-10-2P 198988-13-5P  
 198988-14-6P 198988-15-7P 198988-19-1P  
 198988-20-4P 198988-22-6P 198988-23-7P  
 198988-24-8P 198988-25-9P 198988-26-0P  
 198988-27-1P 198988-28-2P 198988-29-3P  
 198988-30-6P 198988-31-7P 198988-34-0P  
 198988-35-1P 198988-36-2P 198988-37-3P  
 198988-38-4P 198988-39-5P 198988-40-8P  
 198988-41-9P 198988-42-0P 198988-43-1P  
 198988-44-2P 198988-46-4P 198988-47-5P  
 198988-48-6P 198988-49-7P 198988-50-0P  
 198988-52-2P 198988-54-4P 198988-55-5P  
 198988-56-6P 198988-57-7P 198988-58-8P  
 198988-62-4P 198988-63-5P 198988-64-6P  
 198988-65-7P 198988-66-8P 198988-68-0P  
 198988-73-7P 198988-74-8P 199014-24-9P  
 199014-25-0P 199014-26-1P

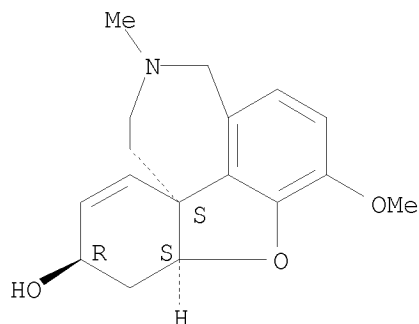
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzazepine galanthamine analogs and diazabicycloheptanes for use in treatment of dementia)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



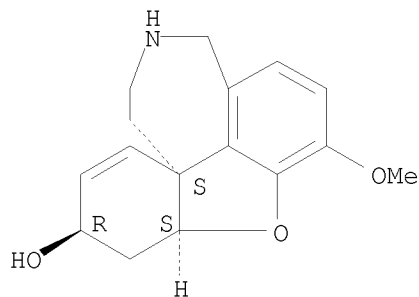
RN 41303-52-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)



10/573,517

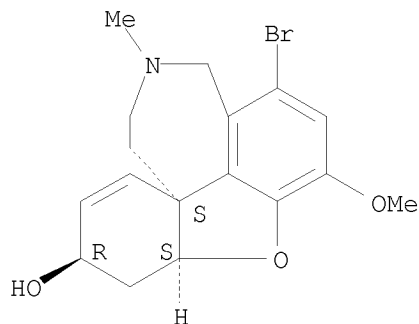
Relative stereochemistry.



RN 179107-98-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

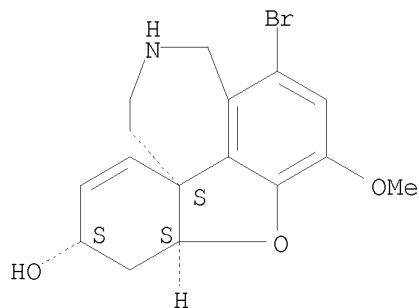
Relative stereochemistry.



RN 179239-41-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6R,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

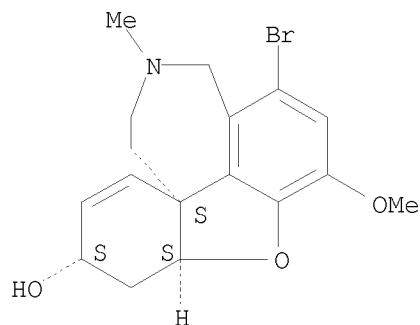


RN 180854-29-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6R,8aR)-rel- (9CI) (CA INDEX NAME)

10/573,517

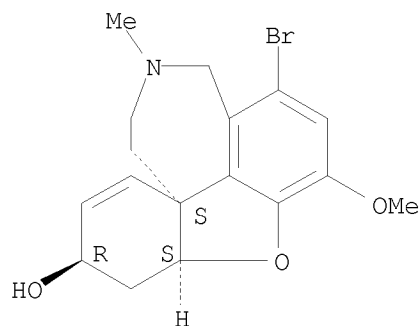
Relative stereochemistry.



RN 183626-04-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

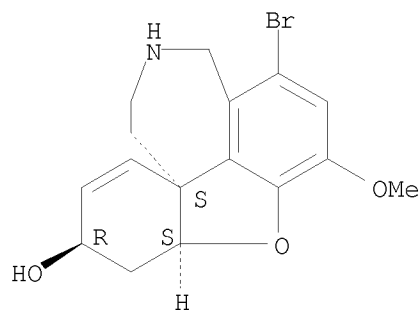
Absolute stereochemistry. Rotation (-).



RN 198987-71-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

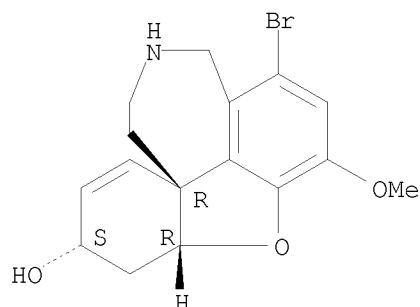


RN 198987-72-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)- (CA INDEX NAME)

10/573,517

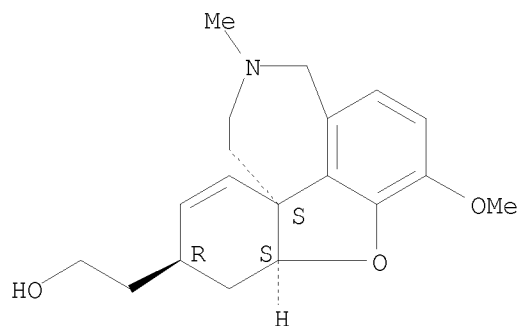
Absolute stereochemistry. Rotation (+).



RN 198987-75-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-6-ethanol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

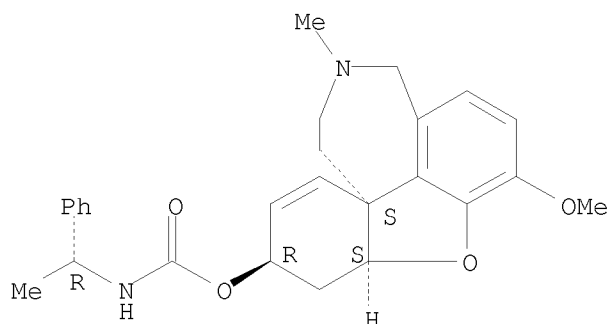
Relative stereochemistry.



RN 198987-76-7 CAPLUS

CN Carbamic acid, N-[(1R)-1-phenylethyl]-, (8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



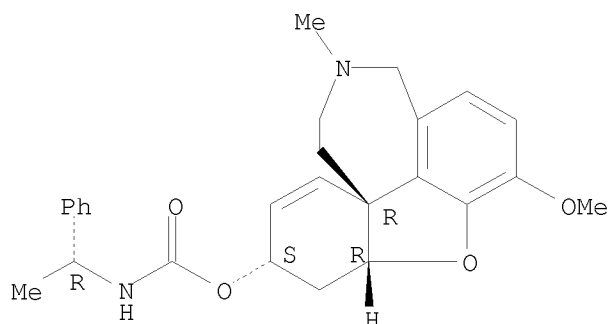
RN 198987-77-8 CAPLUS

CN Carbamic acid, [(1R)-1-phenylethyl]-, (4aR,6S,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl

10/573,517

ester (9CI) (CA INDEX NAME)

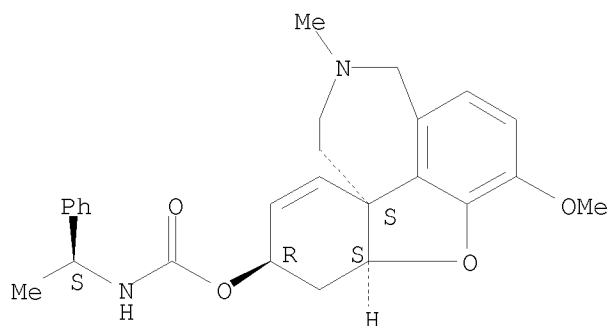
Absolute stereochemistry. Rotation (+).



RN 198987-78-9 CAPLUS

CN Carbamic acid, N-[(1S)-1-phenylethyl]-, (8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl ester (CA INDEX NAME)

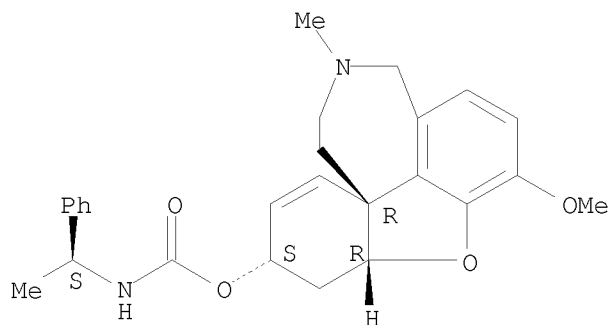
Absolute stereochemistry. Rotation (-).



RN 198987-79-0 CAPLUS

CN Carbamic acid, (1-phenylethyl)-, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, [4aR-[4a $\alpha$ ,6 $\beta$ (S\*),8aR\*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

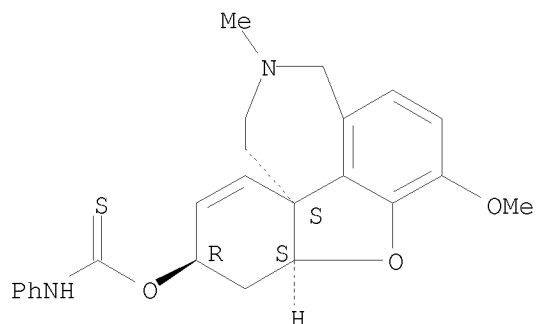


10/573,517

RN 198987-80-3 CAPLUS

CN Carbamothioic acid, N-phenyl-, O-[(8aS,10R,12aS)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl] ester (CA INDEX NAME)

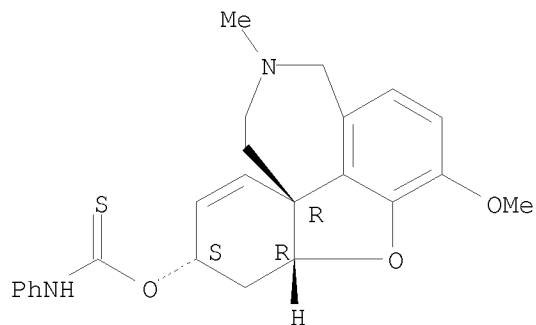
Absolute stereochemistry. Rotation (-).



RN 198987-81-4 CAPLUS

CN Carbamothioic acid, N-phenyl-, O-[(8aR,10S,12aR)-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10H-benzofuro[3a,3,2-ef][2]benzazepin-10-yl] ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

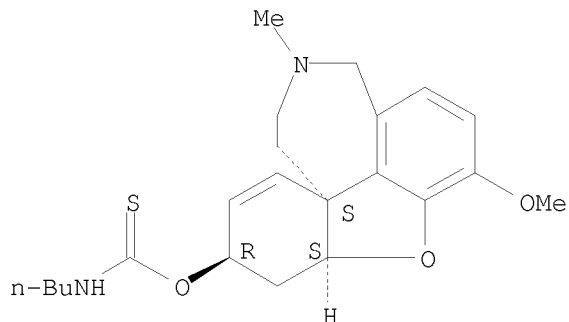


RN 198987-82-5 CAPLUS

CN Carbamothioic acid, N-butyl-, O-[(4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

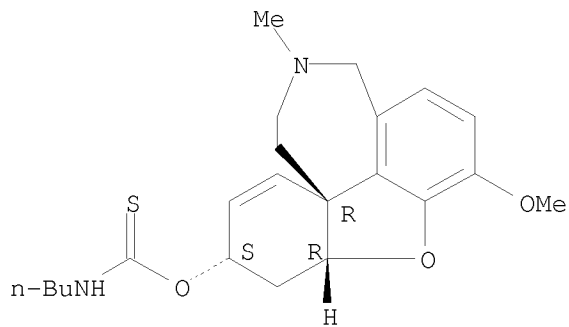
10/573,517



RN 198987-83-6 CAPLUS

CN Carbamothioic acid, N-butyl-, O-[(4aR,6S,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] ester (CA INDEX NAME)

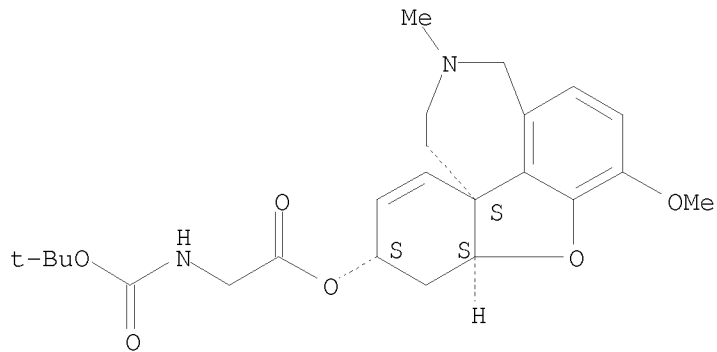
Absolute stereochemistry. Rotation (+).



RN 198987-84-7 CAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, [4aS-(4a $\alpha$ ,6 $\alpha$ ,8aR\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



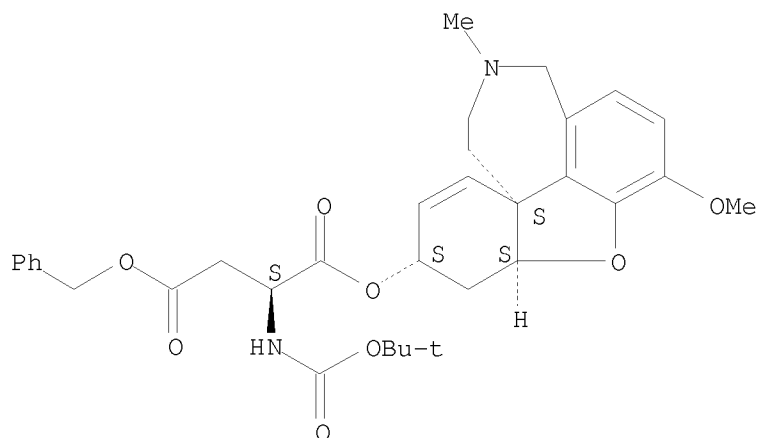
RN 198987-85-8 CAPLUS

CN L-Aspartic acid, N-[(1,1-dimethylethoxy)carbonyl]-, 1-[(4aS,6S,8aS)-

10/573,517

4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] 4-(phenylmethyl) ester (CA INDEX NAME)

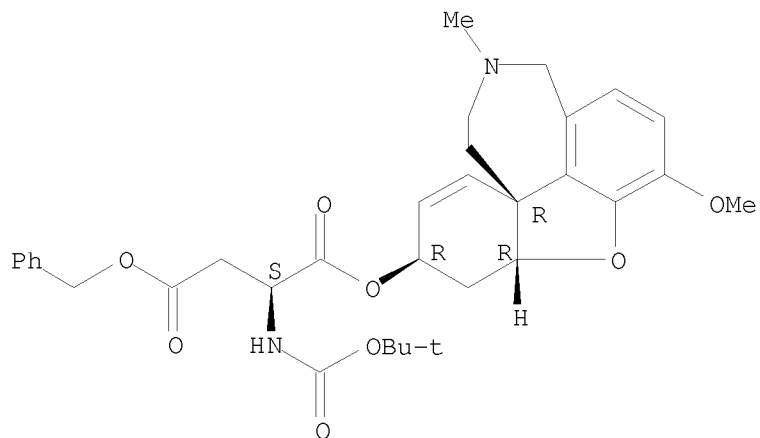
Absolute stereochemistry. Rotation (-).



RN 198987-86-9 CAPLUS

CN L-Aspartic acid, N-[(1,1-dimethylethoxy)carbonyl]-, 1-[(4aR,6R,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] 4-(phenylmethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

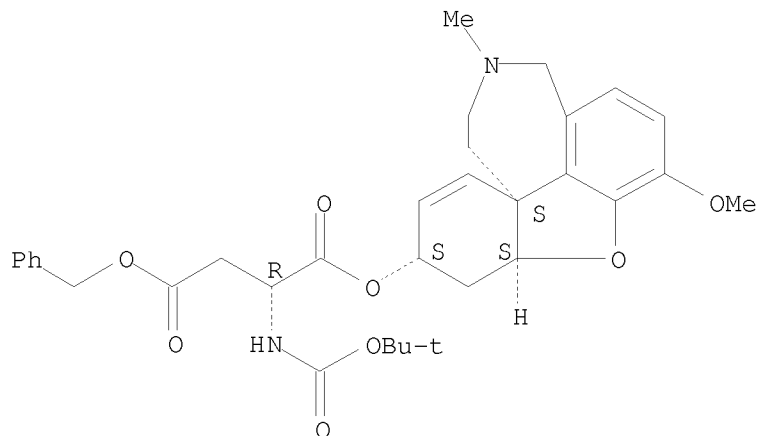


RN 198987-87-0 CAPLUS

CN D-Aspartic acid, N-[(1,1-dimethylethoxy)carbonyl]-, 1-[(4aS,6S,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl] 4-(phenylmethyl) ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

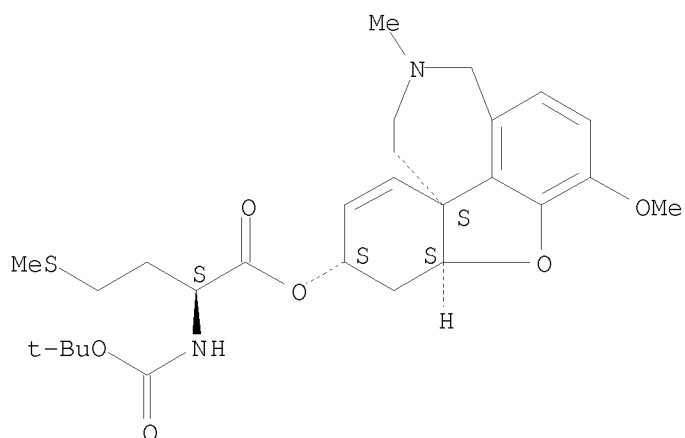
10/573,517



RN 198987-88-1 CAPLUS

CN L-Methionine, N-[(1,1-dimethylethoxy)carbonyl]-, (4aS,6S,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.



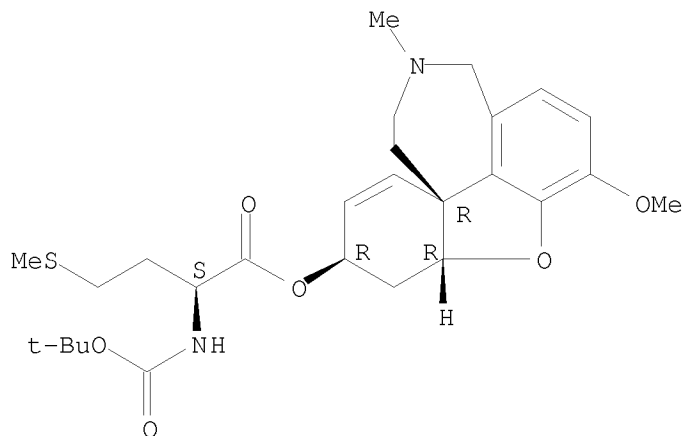
RN 198987-89-2 CAPLUS

CN L-Methionine, N-[(1,1-dimethylethoxy)carbonyl]-, (4aR,6R,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.



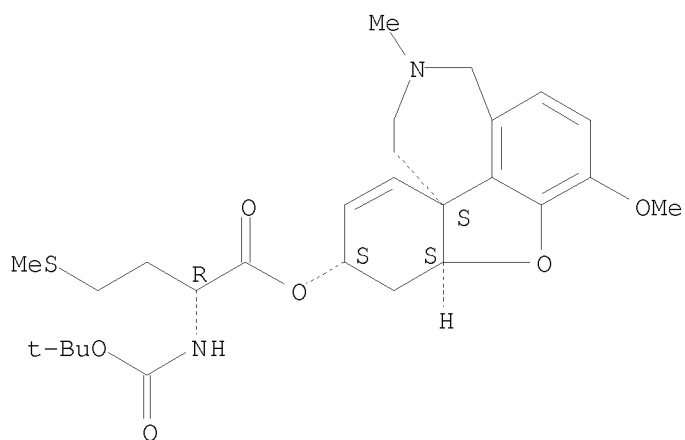
10/573,517



RN 198987-90-5 CAPLUS

CN D-Methionine, N-[(1,1-dimethylethoxy)carbonyl]-, (4aS,6S,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

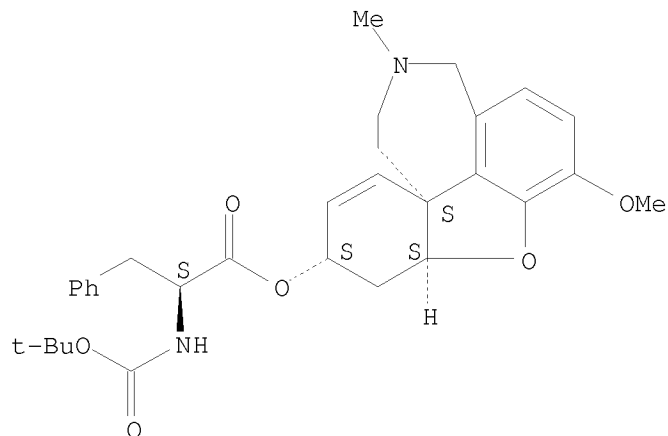


RN 198987-91-6 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-, (4aS,6S,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

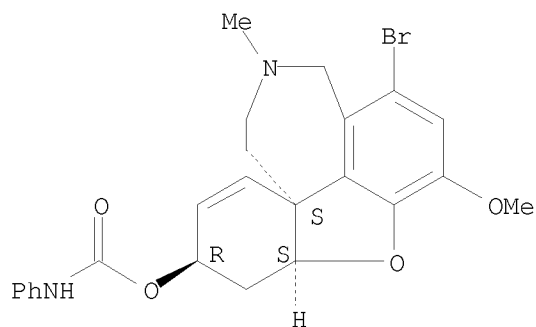
10/573,517



RN 198987-92-7 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 5-bromo-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 10-N-phenylcarbamic acidazocarbamic acidamide, (8aR,10S,12aR)-rel- (CA INDEX NAME)

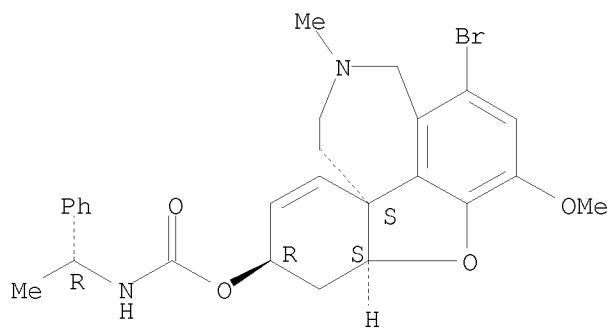
Relative stereochemistry.



RN 198987-93-8 CAPLUS

CN Carbamic acid, (1-phenylethyl)-, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, [4a $\alpha$ ,6 $\beta$ (S\*),8aR\*]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

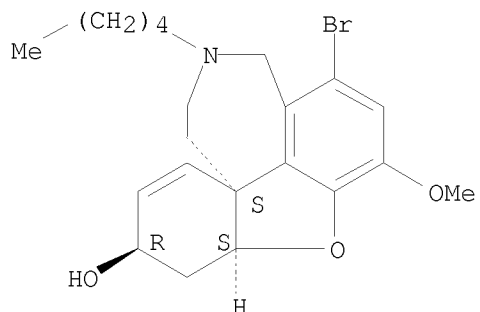


10/573,517

RN 198987-94-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 5-bromo-1,2,3,4,8a,9-hexahydro-7-methoxy-3-pentyl-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

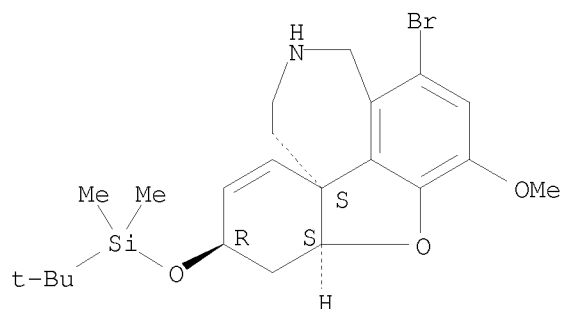
Relative stereochemistry.



RN 198987-95-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 1-bromo-6-[[ (1,1-dimethylethyl)dimethylsilyl]oxy]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

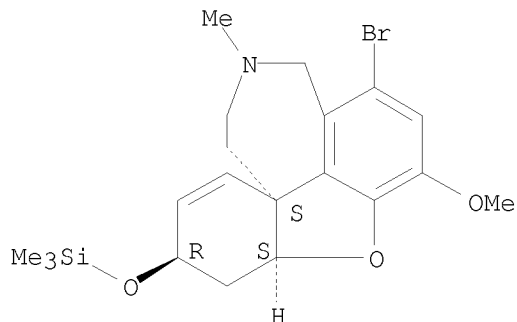


RN 198987-96-1 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine, 5-bromo-1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-10-[(trimethylsilyl)oxy]-, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

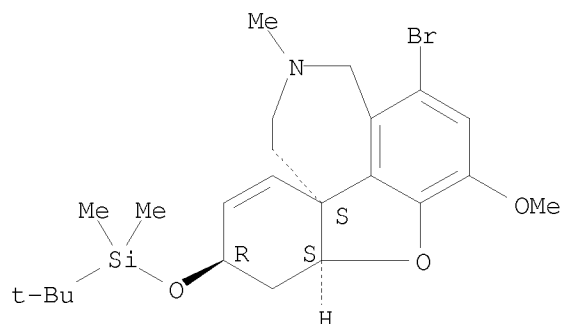
10/573,517



RN 198987-97-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 1-bromo-6-[[1,1-dimethylethyl]dimethylsilyl]oxy]-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

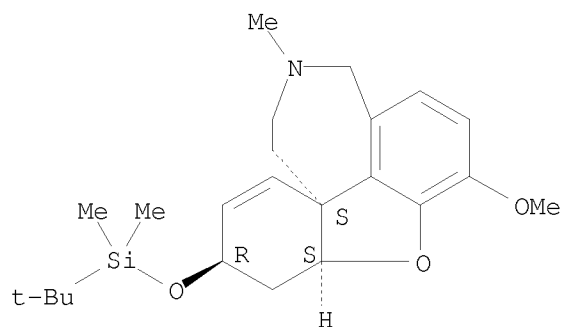
Absolute stereochemistry. Rotation (-).



RN 198987-98-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 6-[[1,1-dimethylethyl]dimethylsilyl]oxy]-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry.

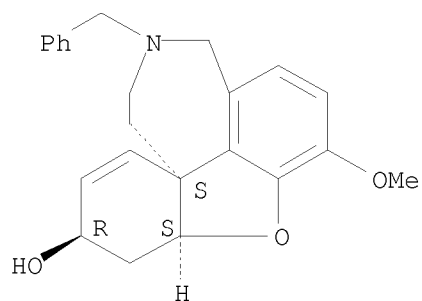


RN 198988-03-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(phenylmethyl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

10/573,517

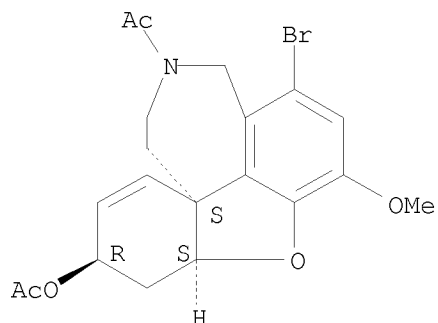
Relative stereochemistry.



RN 198988-05-5 CAPLUS

CN Ethanone, 1-[(4aR,6S,8aR)-6-(acetyloxy)-1-bromo-4a,5,9,10-tetrahydro-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]-, rel- (CA INDEX NAME)

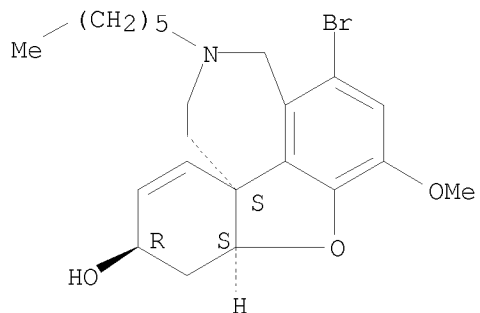
Relative stereochemistry.



RN 198988-06-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-11-hexyl-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



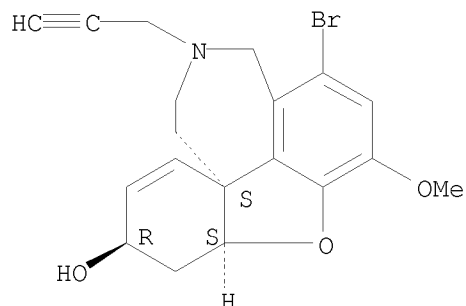
RN 198988-07-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-

10/573,517

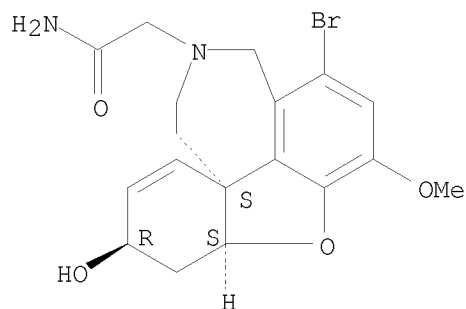
hexahydro-3-methoxy-11-(2-propyn-1-yl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



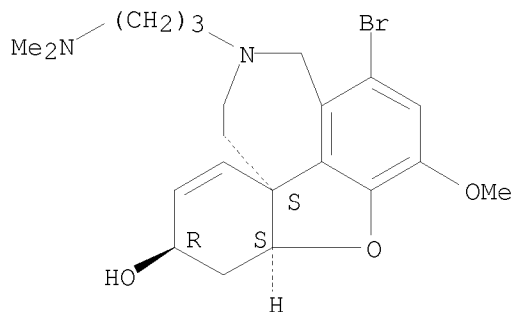
RN 198988-10-2 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-acetamide,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aR,7S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 198988-13-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-11-[3-(dimethylamino)propyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

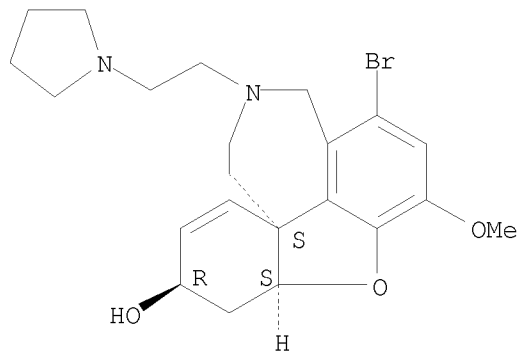


10/573,517

RN 198988-14-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-(1-pyrrolidinyl)ethyl]-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

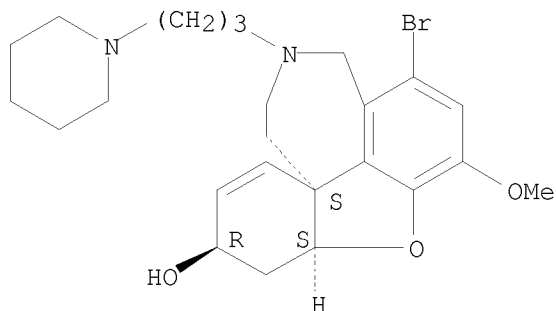
Relative stereochemistry.



RN 198988-15-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-(1-piperidiny)l]propyl]-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

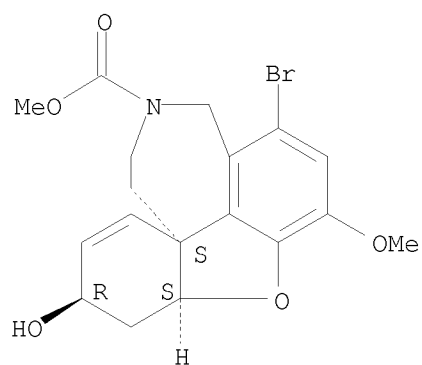


RN 198988-19-1 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-carboxylic acid, 12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, methyl ester, (4aR,7S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

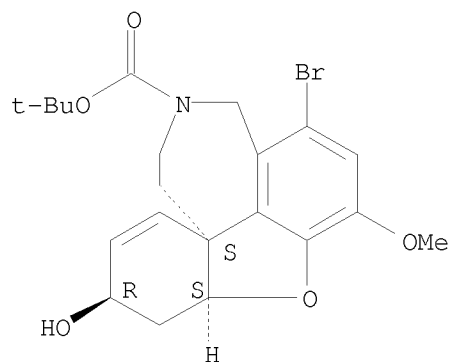
10/573,517



RN 198988-20-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-carboxylic acid,  
5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-, 1,1-dimethylethyl  
ester, (8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



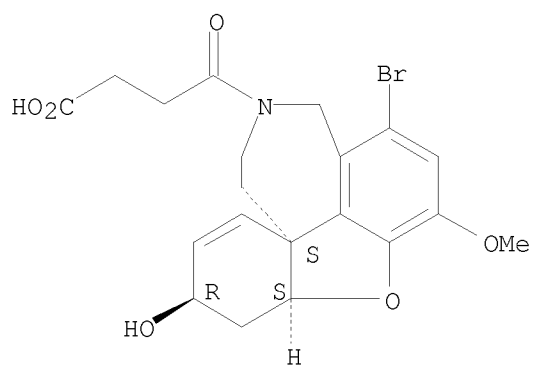
RN 198988-22-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-butanoic acid,  
5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-γ-oxo-,  
(8aR,10S,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



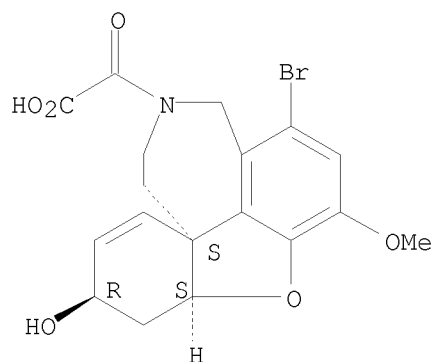
10/573,517



RN 198988-23-7 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepine-3(4H)-acetic acid,  
5-bromo-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy- $\alpha$ -oxo-,  
(8aR,10S,12aR)-rel- (CA INDEX NAME)

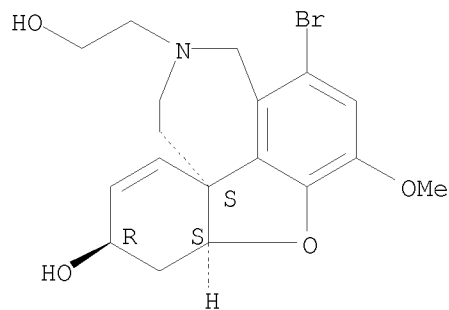
Relative stereochemistry.



RN 198988-24-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-ethanol,  
1-bromo-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.

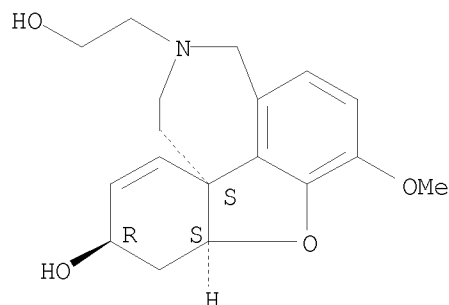


10/573,517

RN 198988-25-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-ethanol,  
4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX  
NAME)

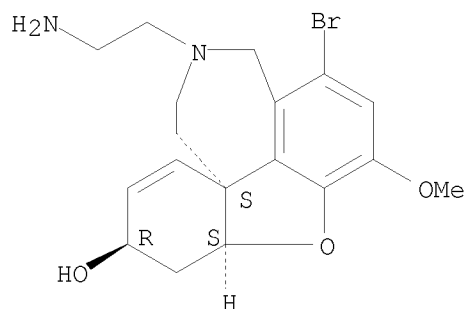
Relative stereochemistry.



RN 198988-26-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(2-aminoethyl)-1-bromo-  
4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

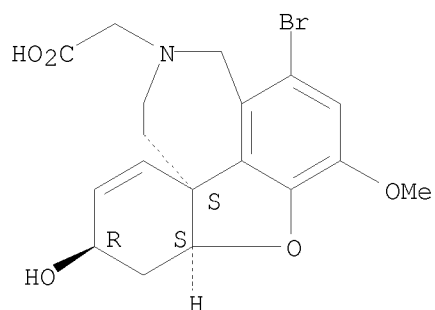


RN 198988-27-1 CAPLUS

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepine-2(1H)-acetic acid,  
12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-, (4aR,7S,8aR)-rel- (CA  
INDEX NAME)

Relative stereochemistry.

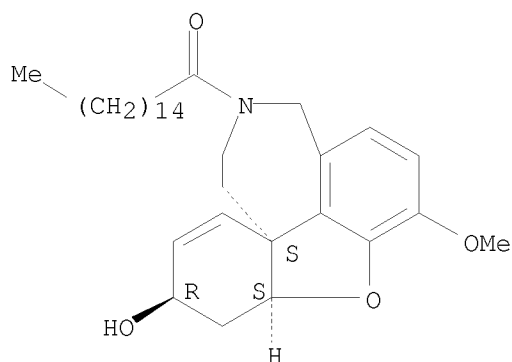
10/573,517



RN 198988-28-2 CAPLUS

CN 1-Hexadecanone, 1-[(8aR,10S,12aR)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]-, rel- (CA INDEX NAME)

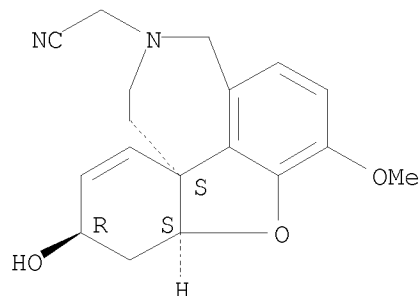
Relative stereochemistry.



RN 198988-29-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine-11(12H)-acetonitrile, 4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



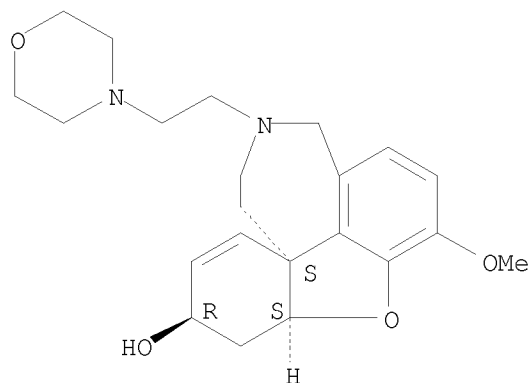
RN 198988-30-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-

10/573,517

methoxy-11-[2-(4-morpholinyl)ethyl]-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

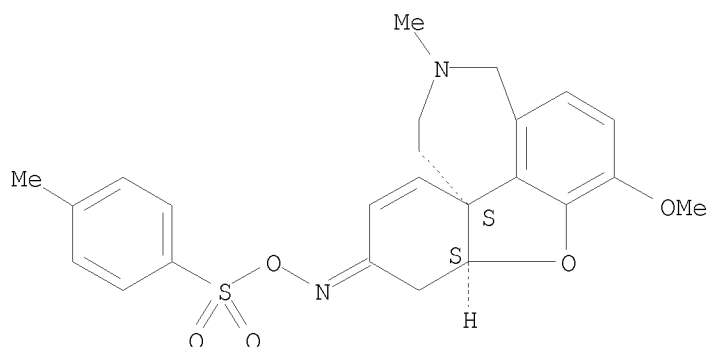


RN 198988-31-7 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, O-[(4-methylphenyl)sulfonyl]oxime, (8aR,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.



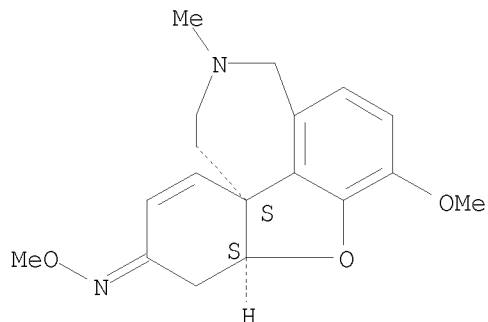
RN 198988-34-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-one, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, O-methyloxime, (4aS,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

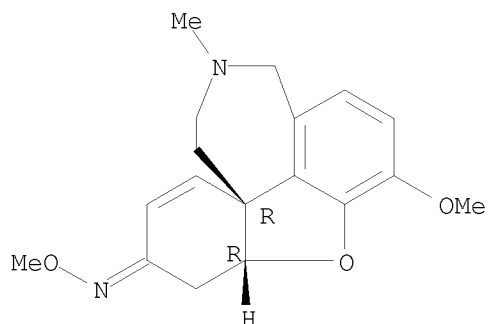
10/573,517



RN 198988-35-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-one, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, O-methyloxime, (4aR,8aR)- (CA INDEX NAME)

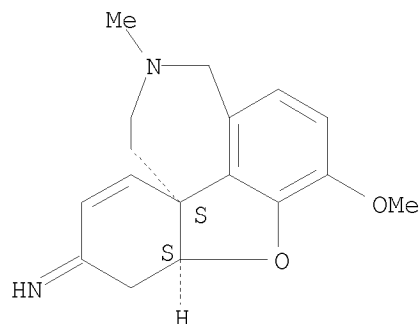
Absolute stereochemistry.  
Double bond geometry unknown.



RN 198988-36-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-imine, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

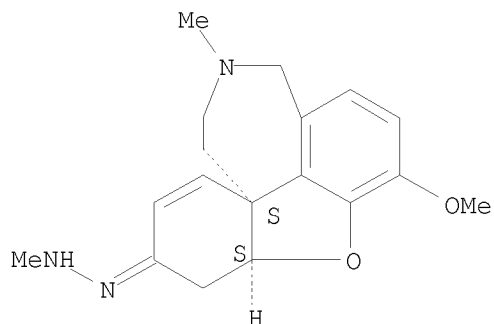


RN 198988-37-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-one, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 2-methylhydrazone, (4aS,8aS)- (CA INDEX NAME)

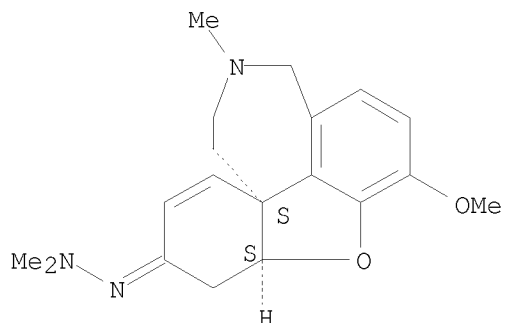
10/573,517

Absolute stereochemistry.  
Double bond geometry unknown.



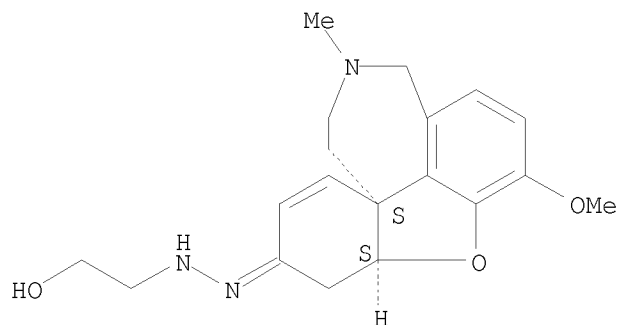
RN 198988-38-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 2,2-dimethylhydrazone, (8aR,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.  
Double bond geometry unknown.



RN 198988-39-5 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 2-(2-hydroxyethyl)hydrazone, (8aR,12aR)-rel- (CA INDEX NAME)

Relative stereochemistry.  
Double bond geometry unknown.

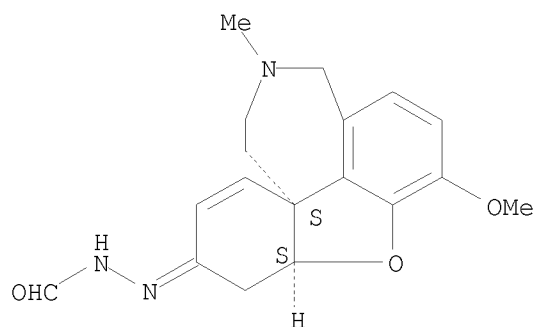


10/573,517

RN 198988-40-8 CAPLUS

CN Hydrazinecarboxaldehyde, (4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ylidene)-, (4aR\*,8aR\*)- (9CI) (CA INDEX NAME)

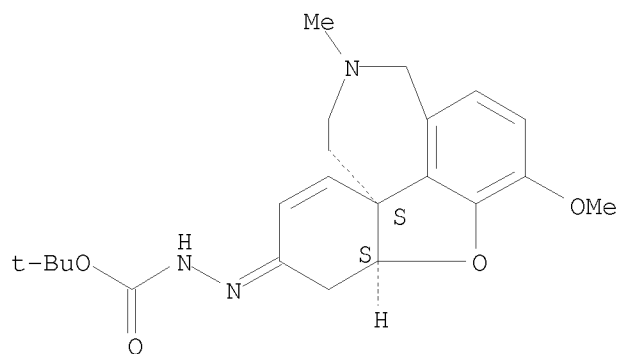
Relative stereochemistry.  
Double bond geometry unknown.



RN 198988-41-9 CAPLUS

CN Hydrazinecarboxylic acid, 2-[(4aR,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ylidene]-, 1,1-dimethylethyl ester, rel- (CA INDEX NAME)

Relative stereochemistry.  
Double bond geometry unknown.

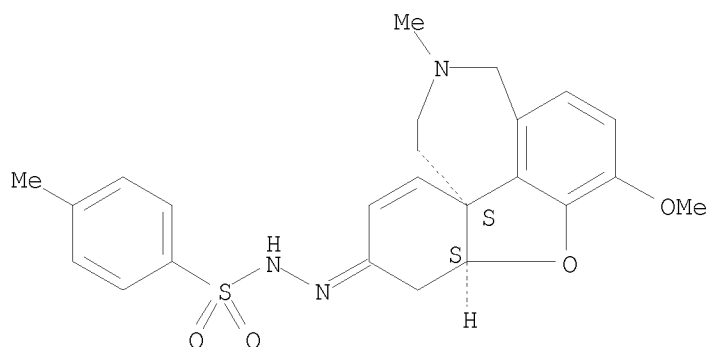


RN 198988-42-0 CAPLUS

CN Benzenesulfonic acid, 4-methyl-, (4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ylidene)hydrazide, (4aR\*,8aR\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.  
Double bond geometry unknown.

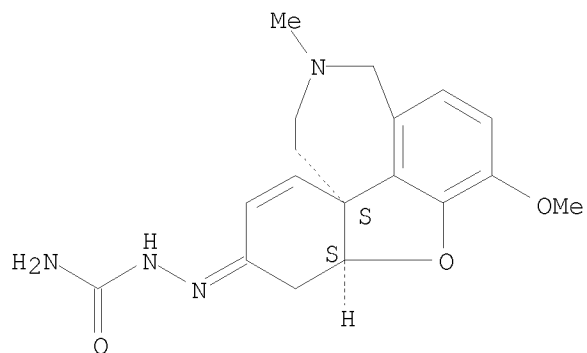
10/573,517



RN 198988-43-1 CAPLUS

CN Hydrazinecarboxamide, 2-(4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ylidene)-, (4aR\*,8aR\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.  
Double bond geometry unknown.



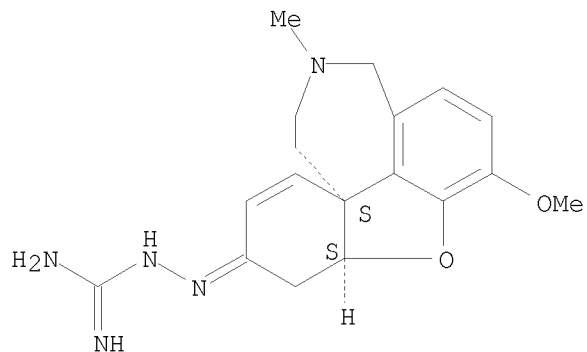
RN 198988-44-2 CAPLUS

CN Hydrazinecarboximidamide, 2-(4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ylidene)-, (4aR\*,8aR\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.  
Double bond geometry unknown.



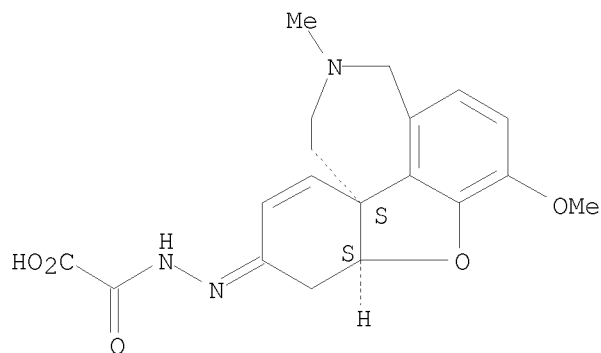
10/573,517



RN 198988-46-4 CAPLUS

CN Ethanedioic acid, 1-[2-(4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ylidene)hydrazide], rel- (CA INDEX NAME)

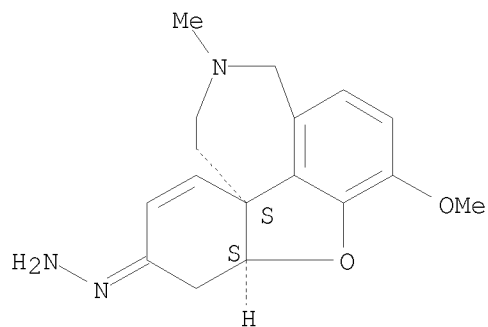
Relative stereochemistry.  
Double bond geometry unknown.



RN 198988-47-5 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-one, 3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, hydrazone, (8aR,12aR)-rel- (CA INDEX NAME)

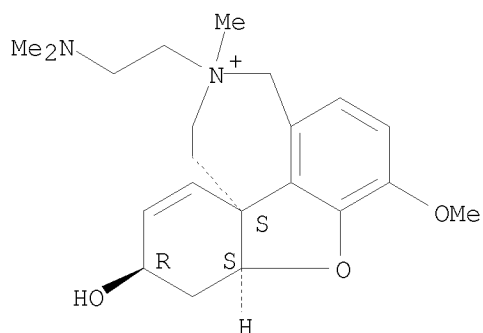
Relative stereochemistry.  
Double bond geometry unknown.



10/573,517

RN 198988-48-6 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepinium, 3-[2-(dimethylamino)ethyl]-  
1,2,3,4,8a,9-hexahydro-10-hydroxy-7-methoxy-3-methyl-, chloride (1:1),  
(8aS,10R,12aS)- (CA INDEX NAME)

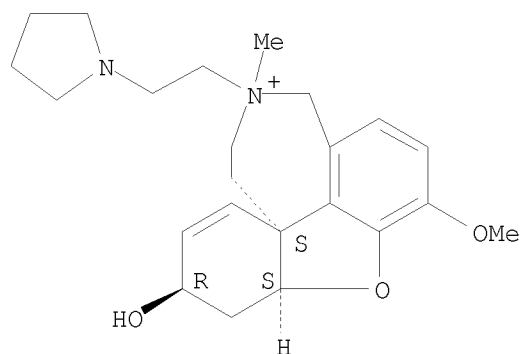
Absolute stereochemistry.



● Cl<sup>-</sup>

RN 198988-49-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-  
hydroxy-3-methoxy-11-methyl-11-[2-(1-pyrrolidiny)ethyl]-, chloride (1:1),  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

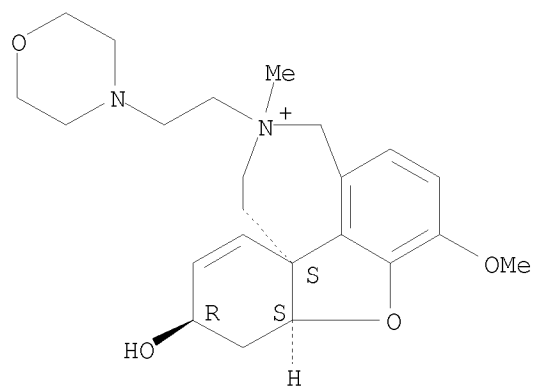


● Cl<sup>-</sup>

RN 198988-50-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-  
hydroxy-3-methoxy-11-methyl-11-[2-(4-morpholinyl)ethyl]-, chloride (1:1),  
(4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

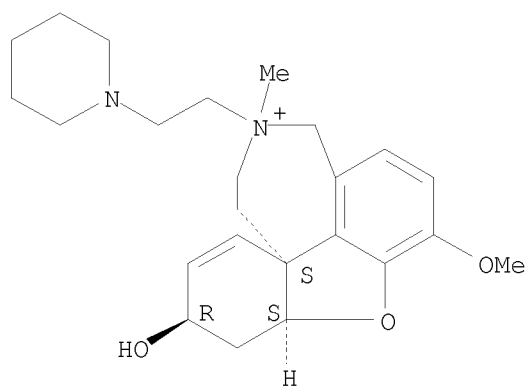
10/573,517



● Cl<sup>-</sup>

RN 198988-52-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[2-(1-piperidinyl)ethyl]-, chloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

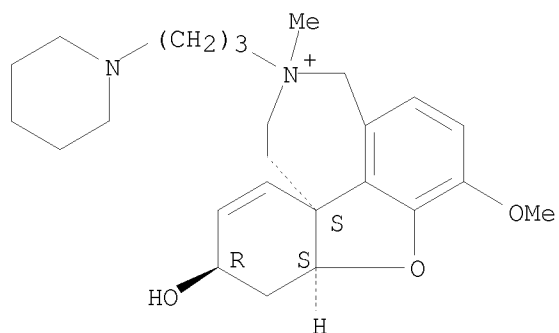


● Cl<sup>-</sup>

RN 198988-54-4 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[3-(1-piperidinyl)propyl]-, chloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

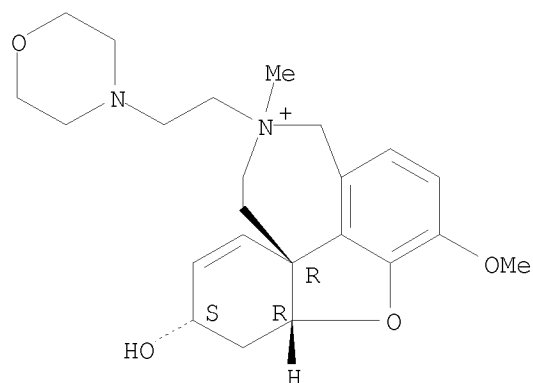
10/573,517



● Cl<sup>-</sup>

RN 198988-55-5 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[2-(4-morpholinyl)ethyl]-, chloride (1:1), (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry.

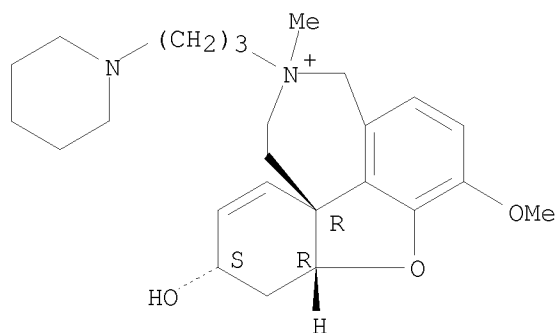


● Cl<sup>-</sup>

RN 198988-56-6 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-[3-(1-piperidiny)propyl]-, chloride (1:1), (4aR,6S,8aR)- (CA INDEX NAME)

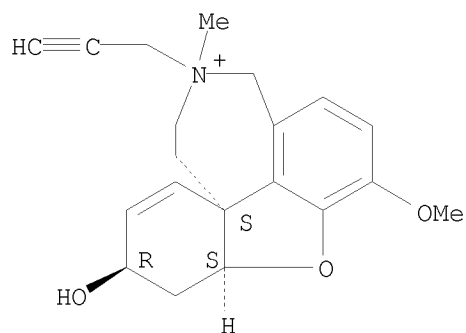
Absolute stereochemistry.

10/573,517



RN 198988-57-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-(2-propyn-1-yl)-, bromide (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

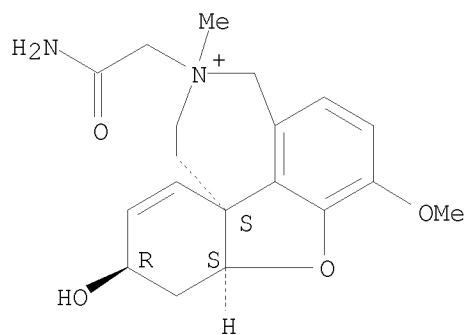
Absolute stereochemistry.



RN 198988-58-8 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 2-(2-amino-2-oxoethyl)-1,2,3,4,8,8a-hexahydro-7-hydroxy-10-methoxy-2-methyl-, bromide (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

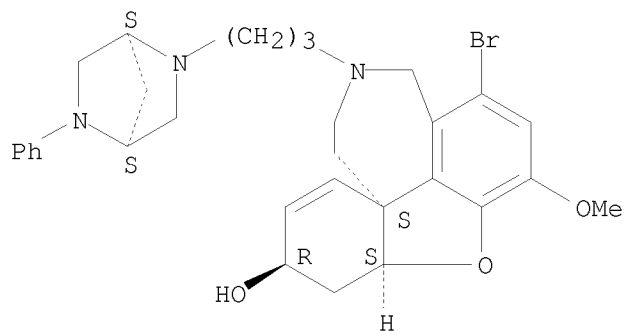
10/573,517



RN 198988-62-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-[(1R,4R)-5-phenyl-2,5-diazabicyclo[2.2.1]hept-2-yl]propyl]-, (4aS,6R,8aS)-rel- (CA INDEX NAME)

Relative stereochemistry.

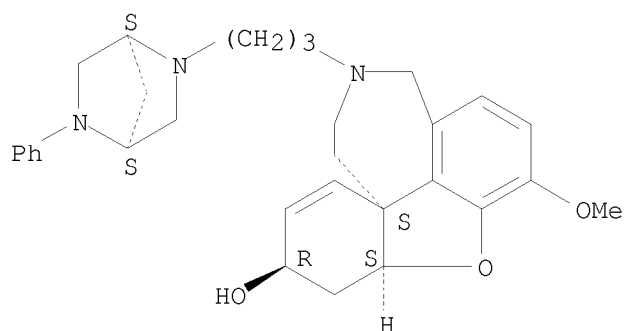


RN 198988-63-5 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-[3-[(1R,4R)-5-phenyl-2,5-diazabicyclo[2.2.1]hept-2-yl]propyl]-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

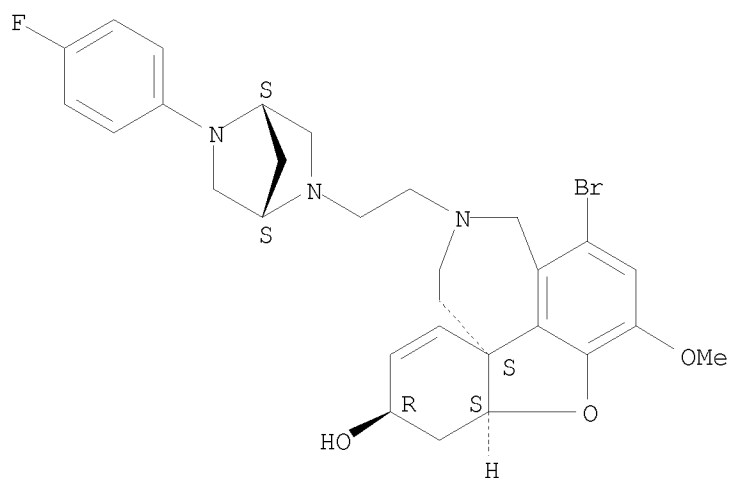
10/573,517



RN 198988-64-6 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-11-[2-[(1R,4R)-5-(4-fluorophenyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]ethyl]-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)-rel- (CA INDEX NAME)

Relative stereochemistry.

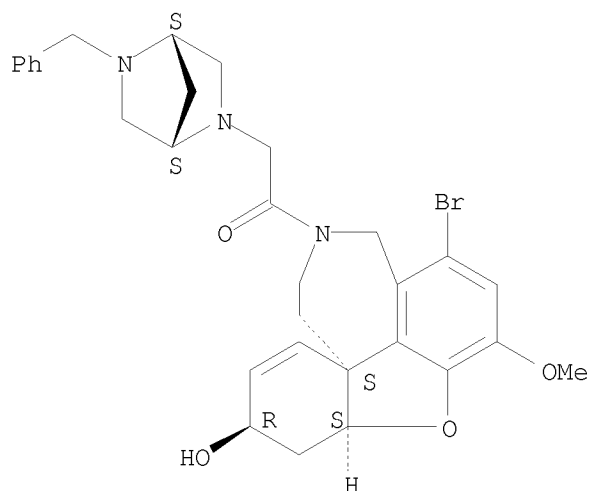


RN 198988-65-7 CAPLUS

CN Ethanone, 1-[(4aR,7S,8aR)-12-bromo-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]-2-[(1R,4R)-5-(phenylmethyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]-, rel- (CA INDEX NAME)

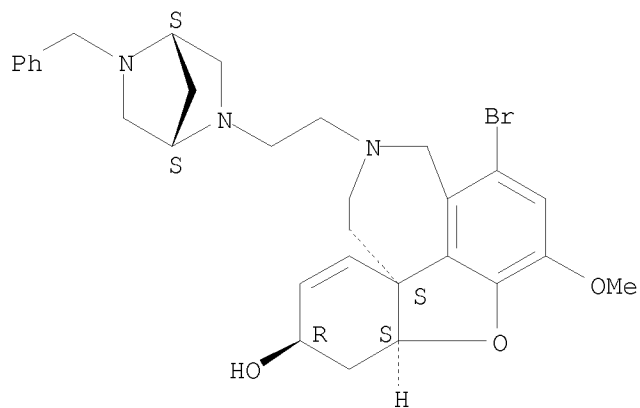
Relative stereochemistry.

10/573,517



RN 198988-66-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-[2-[(1R,4R)-5-(phenylmethyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]ethyl]-, (4aS,6R,8aS)-rel- (CA INDEX NAME)

Relative stereochemistry.

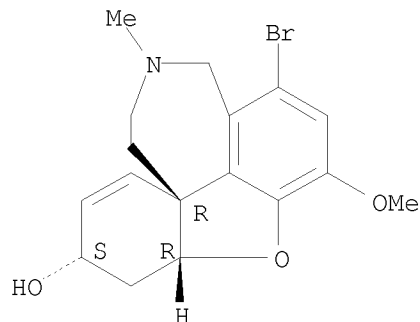


RN 198988-68-0 CAPLUS  
CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 5-bromo-3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, (8aR,10S,12aR)- (CA INDEX NAME)

Absolute stereochemistry.



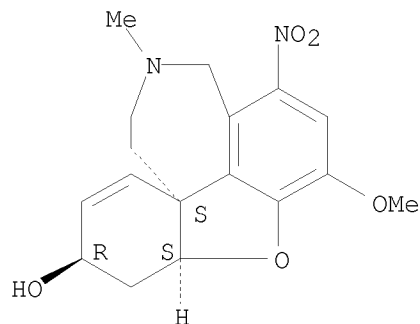
10/573,517



RN 198988-73-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-1-nitro-, (4aS,6R,8aS)- (CA INDEX NAME)

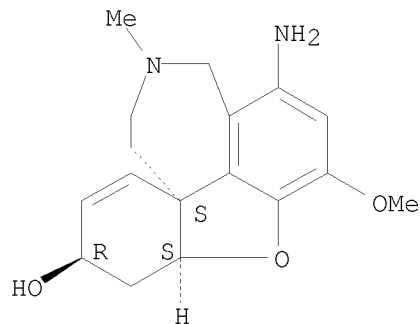
Absolute stereochemistry. Rotation (-).



RN 198988-74-8 CAPLUS

CN 1H,2H,10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 5-amino-3,4,8a,9-tetrahydro-7-methoxy-3-methyl-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

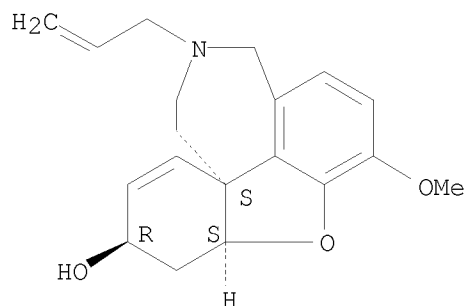


RN 199014-24-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propen-1-yl)-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

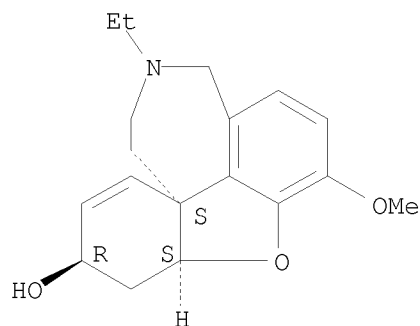
10/573,517



RN 199014-25-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-ethyl-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

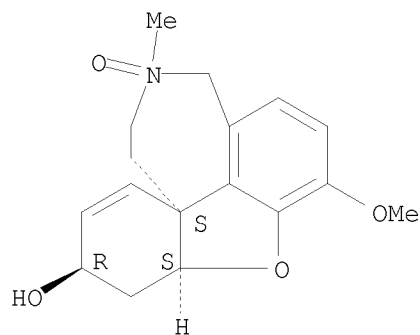
Relative stereochemistry.



RN 199014-26-1 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, 11-oxide, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



IT 1953-04-4, Galanthamine hydrobromide

RL: RCT (Reactant); RACT (Reactant or reagent)

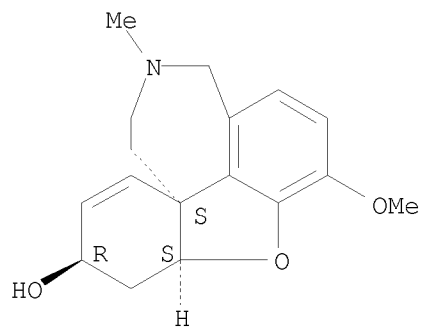
(preparation of benzazepine galanthamine analogs and diazabicycloheptanes for use in treatment of dementia)

10/573,517

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HBr

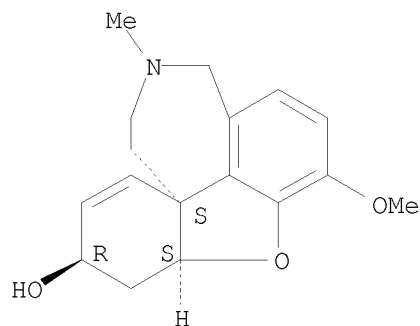
L61 ANSWER 60 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:534559 CAPLUS  
 DOCUMENT NUMBER: 127:135980  
 ORIGINAL REFERENCE NO.: 127:26241a,26244a  
 TITLE: Process for the preparation of enantiomerically-enriched galanthamine  
 INVENTOR(S): Tiffin, Peter David  
 PATENT ASSIGNEE(S): Chiroscience Ltd., UK; Tiffin, Peter David  
 SOURCE: PCT Int. Appl., 12 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9725330	A1	19970717	WO 1997-GB23	19970106
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2239814	A1	19970717	CA 1997-2239814	19970106
CA 2239814	C	20060829		
AU 9713867	A	19970801	AU 1997-13867	19970106
AU 700997	B2	19990114		
ZA 9700081	A	19980106	ZA 1997-81	19970106
EP 880525	A1	19981202	EP 1997-900276	19970106
EP 880525	B1	20021113		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
AT 227725	T	20021115	AT 1997-900276	19970106
PT 880525	T	20030331	PT 1997-900276	19970106
ES 2186862	T3	20030516	ES 1997-900276	19970106
US 6087495	A	20000711	US 1998-101174	19980702
PRIORITY APPLN. INFO.:			GB 1996-80	A 19960104
			WO 1997-GB23	W 19970106
AB	The present invention comprises a process for the preparation of enantiomerically-enriched galanthamine from racemic galanthamine, and a process for increasing the enantiomeric excess of enantiomerically-enriched galanthamine, by direct crystallization of galanthamine salts.			
IT	1953-04-4P, (-)-Galanthamine hydrobromide RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation) (preparation of enantiomerically-enriched galanthamine)			
RN	1953-04-4 CAPLUS			
CN	10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)			

Absolute stereochemistry. Rotation (-).

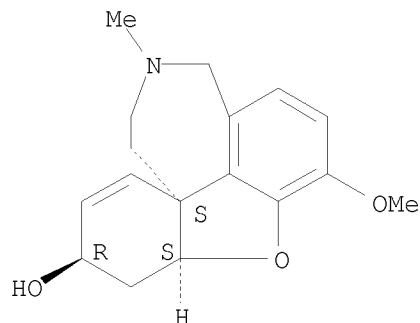
10/573,517



● HBr

IT 357-70-0, (-)-Galanthamine 193146-85-9,  
(±)-Galanthamine hydrobromide  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(preparation of enantiomerically-enriched galanthamine)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

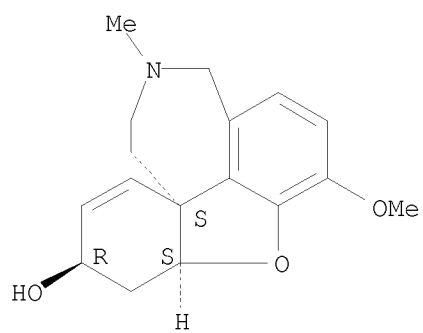
Absolute stereochemistry. Rotation (-).



RN 193146-85-9 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, hydrobromide (1:1), (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

10/573,517

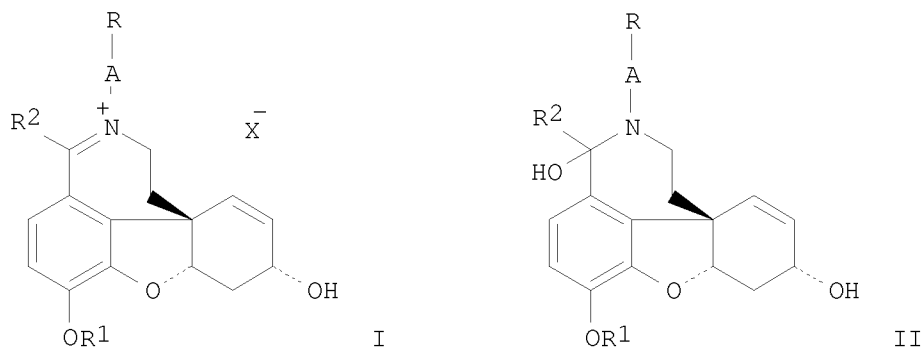


● HBr

L61 ANSWER 61 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:218609 CAPLUS  
 DOCUMENT NUMBER: 126:212284  
 ORIGINAL REFERENCE NO.: 126:41063a,41066a  
 TITLE: Preparation and pharmaceutical compositions of  
 galanthamine derivatives  
 INVENTOR(S): Thal, Claude; Guillou, Catherine; Mary, Aude; Renko,  
 Dolor; Potier, Pierre; Christen, Yves  
 PATENT ASSIGNEE(S): Societe De Conseils De Recherches Et D'application,  
 Fr.; Thal, Claude; Guillou, Catherine; Mary, Aude;  
 Renko, Dolor; Potier, Pierre; Christen, Yves  
 SOURCE: PCT Int. Appl., 43 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9703987	A1	19970206	WO 1996-FR1139	19960719
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM				
CA 2227235	A1	19970206	CA 1996-2227235	19960719
ZA 9606163	A	19970210	ZA 1996-6163	19960719
AU 9666623	A	19970218	AU 1996-66623	19960719
EP 839149	A1	19980506	EP 1996-926431	19960719
EP 839149	B1	20040414		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11509541	T	19990824	JP 1996-506372	19960719
AT 264332	T	20040415	AT 1996-926431	19960719
PT 839149	T	20040831	PT 1996-926431	19960719
ES 2218596	T3	20041116	ES 1996-926431	19960719
US 5958903	A	19990928	US 1998-983309	19980109
NO 9800215	A	19980116	NO 1998-215	19980116
PRIORITY APPLN. INFO.:			GB 1995-14821	A 19950719
			WO 1996-FR1139	W 19960719
OTHER SOURCE(S):	MARPAT	126:212284		
GI				



AB Novel galanthamine derivs. I and II (A = C1-12 alkylene, R = H, (un)substituted amino or ammonium; R1 = H, RA, R2 = H, (un)substituted alkyl or alkenyl, X = pharmaceutically acceptable anion) and their pharmaceutical compns. were prepared as cholinesterase inhibitors. Thus, 10-demethyl-10-(4-phthalimidobutyl)galanthamidine N-oxide, prepared from 10-demethylgalanthamidine and N-(4-bromobutyl)phthalimide, was treated with trifluoroacetic anhydride to give 10-demethyl-10-(4-phthalimidobutyl)galanthaminium trifluoroacetate (III). The cholinesterase inhibiting IC50 of III was 4.7 (10<sup>-7</sup> M).

IT 187796-11-8P 187796-12-9P 187796-13-0P  
187796-14-1P 187796-15-2P 187796-20-9P  
187963-74-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation and pharmaceutical compns. of galanthamine derivs.)

RN 187796-11-8 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]butyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

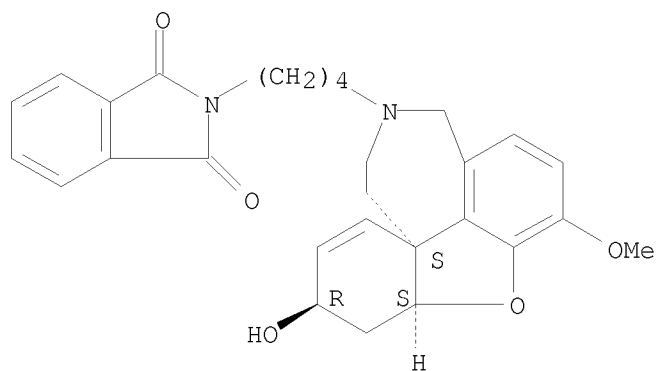
CRN 187795-99-9

CMF C28 H30 N2 O5

Absolute stereochemistry.

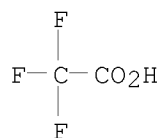


10/573,517



CM 2

CRN 76-05-1  
CMF C2 H F3 O2



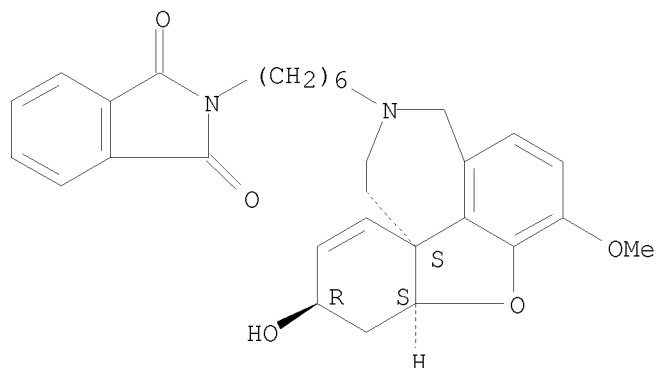
RN 187796-12-9 CAPLUS

CN 1H-isoindole-1,3(2H)-dione, 2-[6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 187796-00-5  
CMF C30 H34 N2 O5

Absolute stereochemistry.

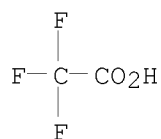


10/573,517

CM 2

CRN 76-05-1

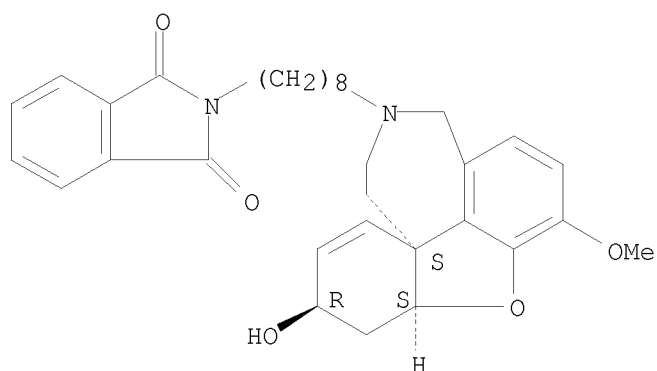
CMF C2 H F3 O2



RN 187796-13-0 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[8-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]octyl]-, hydrobromide (1:1) (CA INDEX NAME)

Absolute stereochemistry.



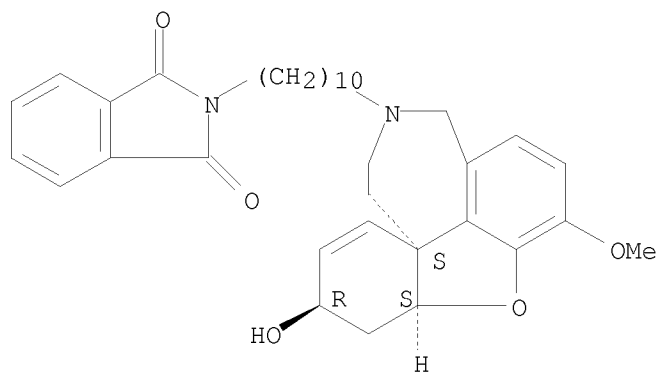
● HBr

RN 187796-14-1 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[10-[(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]decyl]-, hydrobromide (1:1) (CA INDEX NAME)

Absolute stereochemistry.

10/573,517

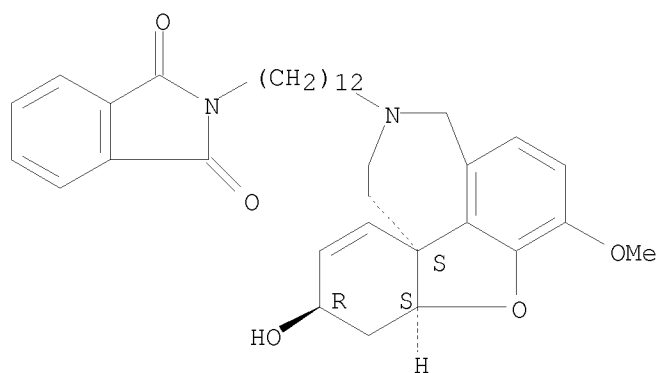


● HBr

RN 187796-15-2 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[12-[(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]dodecyl]-, hydrobromide (1:1) (CA INDEX NAME)

Absolute stereochemistry.



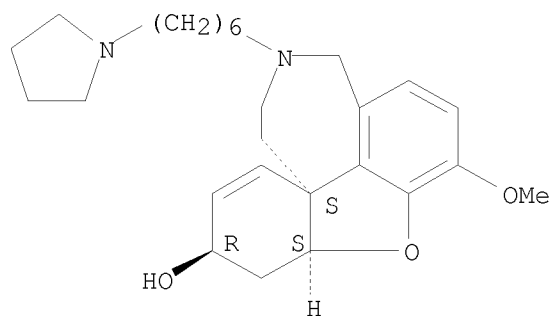
● HBr

RN 187796-20-9 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-(1-pyrrolidinyl)hexyl]-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517



● HBr

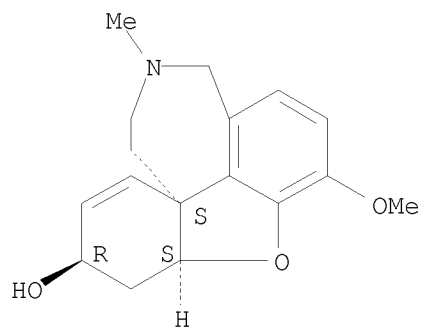
RN 187963-74-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)-, methanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 357-70-0

CMF C17 H21 N O3

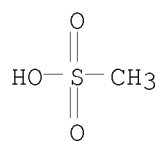
Absolute stereochemistry. Rotation (-).



CM 2

CRN 75-75-2

CMF C H4 O3 S



IT 357-70-0, Galanthamine

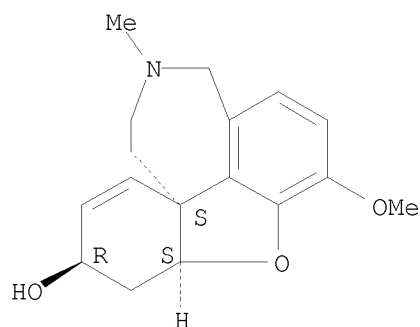
10/573,517

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation and pharmaceutical compns. of galanthamine derivs.)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 41303-74-6P, Norgalanthamine 187795-99-9P

187796-00-5P 187796-01-6P 187796-02-7P

187796-03-8P 187796-04-9P 187796-09-4P

187796-10-7P

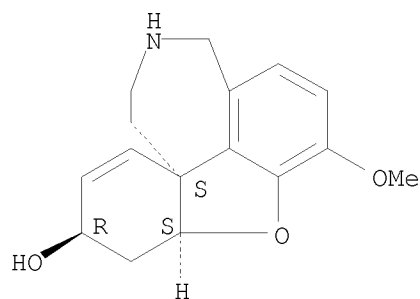
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation and pharmaceutical compns. of galanthamine derivs.)

RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

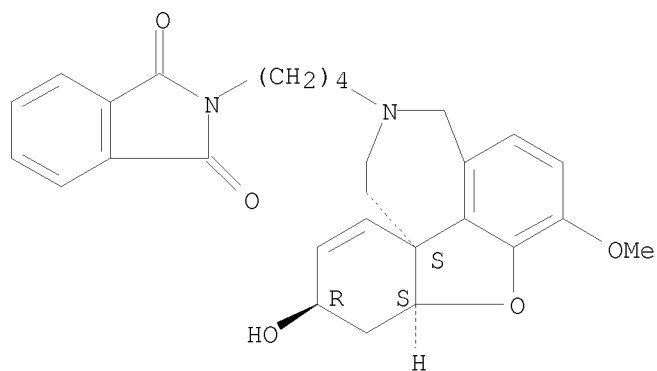


RN 187795-99-9 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]butyl]-  
(CA INDEX NAME)

Absolute stereochemistry.

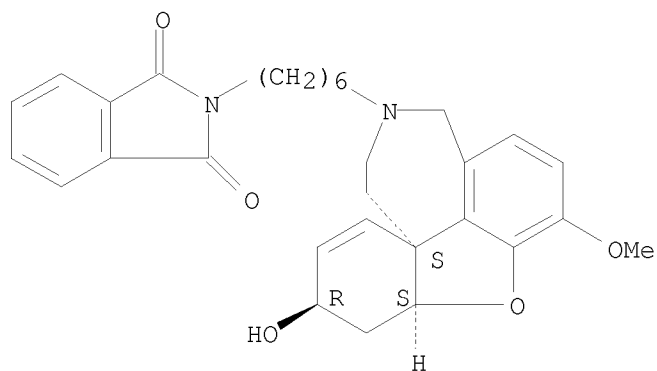
10/573,517



RN 187796-00-5 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[6-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]hexyl]- (CA INDEX NAME)

Absolute stereochemistry.

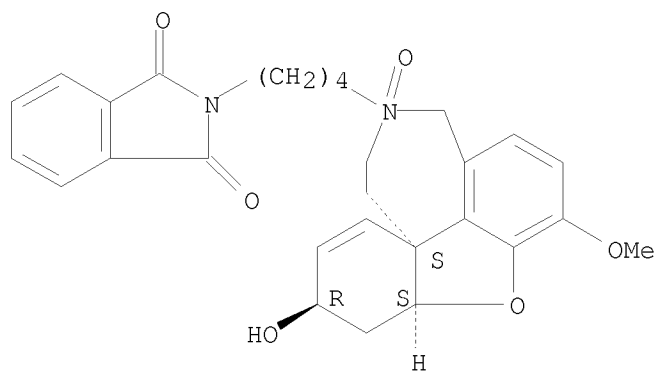


RN 187796-01-6 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[(8aS,10R,12aS)-1,2,8a,9-tetrahydro-10-hydroxy-7-methoxy-3-oxido-10H-benzofuro[3a,3,2-ef][2]benzazepin-3(4H)-yl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

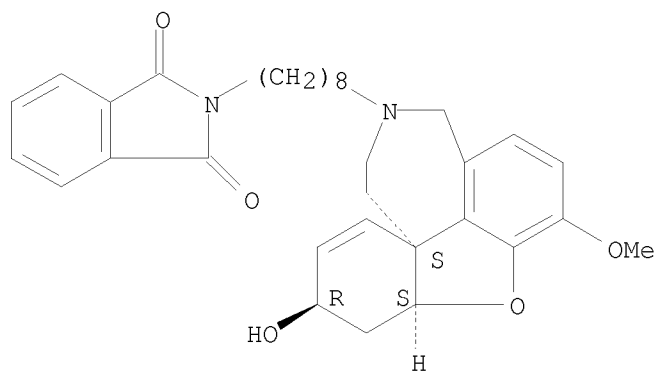
10/573,517



RN 187796-02-7 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[8-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]octyl]- (CA INDEX NAME)

Absolute stereochemistry.

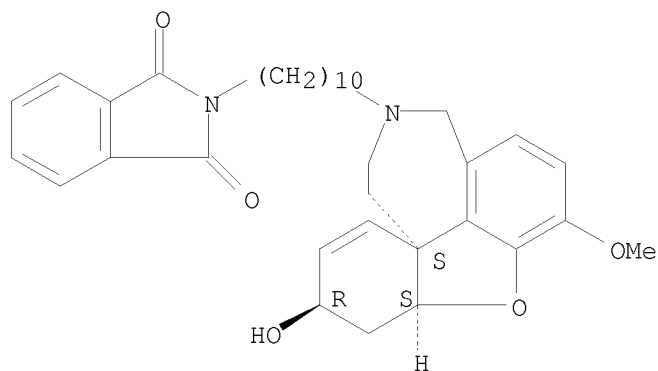


RN 187796-03-8 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[10-[(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]decyl]- (CA INDEX NAME)

Absolute stereochemistry.

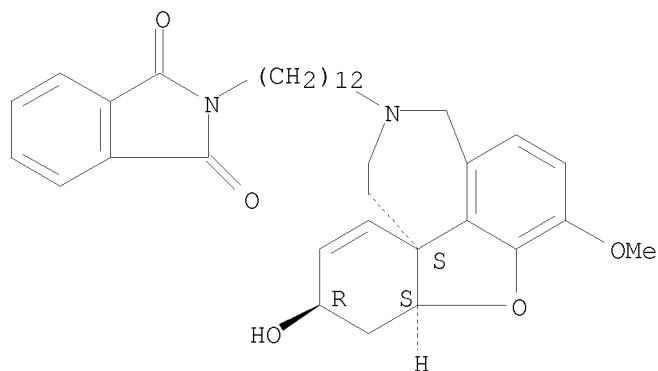
10/573,517



RN 187796-04-9 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[12-[(4aS,7R,8aS)-3,4,8,8a-tetrahydro-7-hydroxy-10-methoxy-7H-benzofuro[3a,3,2-ef]-2-benzazepin-2(1H)-yl]dodecyl]- (CA INDEX NAME)

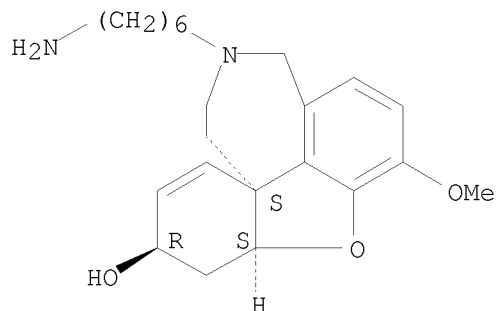
Absolute stereochemistry.



RN 187796-09-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 11-(6-aminohexyl)-, 4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



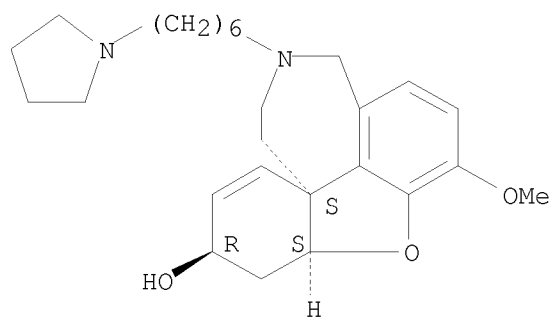


10/573,517

RN 187796-10-7 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-[6-(1-pyrrolidinyl)hexyl]-, (8aS,10R,12aS)- (CA INDEX NAME)

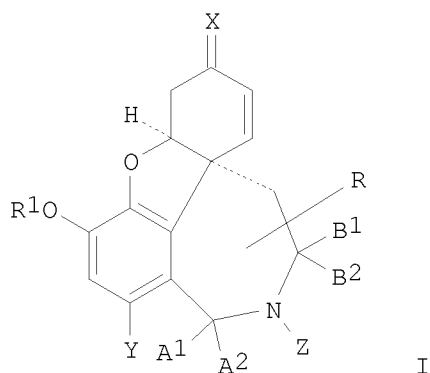
Absolute stereochemistry.



L61 ANSWER 62 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:718339 CAPLUS  
 DOCUMENT NUMBER: 126:8355  
 ORIGINAL REFERENCE NO.: 126:1863a,1866a  
 TITLE: Process for preparing galanthamine derivatives by  
 asymmetric reduction  
 INVENTOR(S): Dyer, Ulrich Conrad; Paul, Jane Marie; Mccague,  
 Raymond  
 PATENT ASSIGNEE(S): Chiroscience Limited, UK  
 SOURCE: PCT Int. Appl., 14 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9631453	A1	19961010	WO 1996-GB843	19960404
W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, DK, EE, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2215518	A1	19961010	CA 1996-2215518	19960404
CA 2215518	C	20061128		
AU 9652819	A	19961023	AU 1996-52819	19960404
AU 709080	B2	19990819		
EP 819108	A1	19980121	EP 1996-909250	19960404
EP 819108	B1	20010829		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
AT 204840	T	20010915	AT 1996-909250	19960404
ES 2162042	T3	20011216	ES 1996-909250	19960404
PT 819108	T	20020228	PT 1996-909250	19960404
ZA 9602812	A	19970409	ZA 1996-2812	19960409
TW 448177	B	20010801	TW 1996-85104664	19960419
US 6018043	A	20000125	US 1998-930211	19980202
PRIORITY APPLN. INFO.:			GB 1995-7100	A 19950406
			GB 1996-1227	A 19960122
			WO 1996-GB843	W 19960404
OTHER SOURCE(S):	CASREACT 126:8355; MARPAT 126:8355			
GI				



AB Enantio-enriched galanthamine derivs I (A1 = A2 = H; A1A2 = O; B1 = B2 = H, B1B2 = O; Z = H, alkyl, alkyl precursor, N-protecting group, e.g. acyl or alkyloxycarbonyl; Y = H, substituent, e.g. Br; R1 = alkyl; R = H, substituent; X = H, OH) were prepared by asym. reduction of the corresponding narwedine derivs. I (X = O). Thus, (-)-galanthamine was prepared in 36% yield and with 50% ee. by asym. reduction of (±)-narwedine with a hydride agent formed in situ from LiAlH<sub>4</sub>, (-)-N-methylephedrine, and 2-(ethylamino)pyridine.

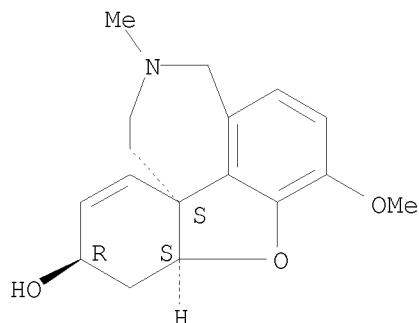
IT 357-70-0P, (-)-Galanthamine 183626-04-2P  
183626-05-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of galanthamine derivs. by asym. reduction)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

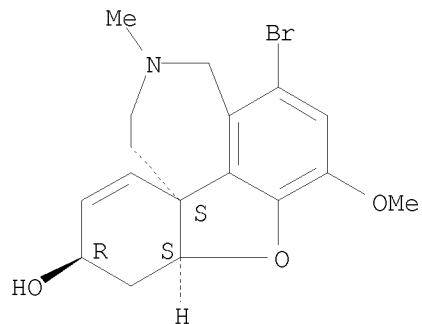


RN 183626-04-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

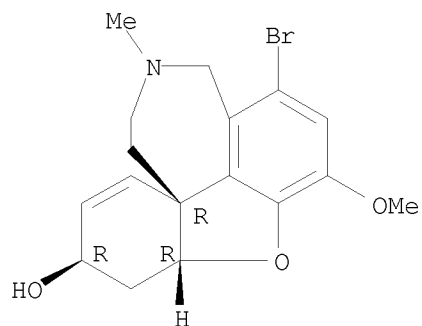
10/573,517



RN 183626-05-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, [4aR-(4a $\alpha$ ,6 $\alpha$ ,8aR\*)]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



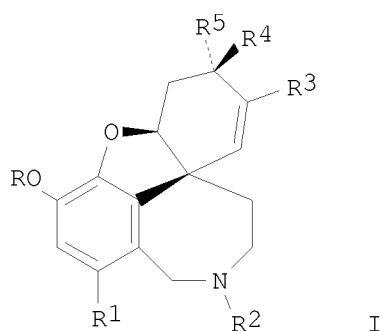
L61 ANSWER 63 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:540908 CAPLUS  
 DOCUMENT NUMBER: 125:196086  
 ORIGINAL REFERENCE NO.: 125:36742h,36743a  
 TITLE: Preparation of 4a,5,9,10,11,12-hexahydro-6H-benzofuro[3a,3,2-ef][2]benzazepines  
 INVENTOR(S): Czollner, Laszlo; Froehlich, Johannes; Jordis, Ulrich; Kueenburg, Bernhard  
 PATENT ASSIGNEE(S): Waldheim Pharmazeutika Gesellschaft M.B.H., Austria  
 SOURCE: Austrian, 29 pp.  
 CODEN: AUXXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AT 401058	B	19960625	AT 1994-1980	19941021
AT 9401980	A	19951015		
TW 585867	B	20040501	TW 1995-84110607	19951009
CA 2203183	A1	19960502	CA 1995-2203183	19951023
CA 2203183	C	20080408		
WO 9612692	A1	19960502	WO 1995-AT208	19951023
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9536938	A	19960515	AU 1995-36938	19951023
AU 695352	B2	19980813		
EP 787115	A1	19970806	EP 1995-944807	19951023
EP 787115	B1	20000105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1170395	A	19980114	CN 1995-196432	19951023
CN 1069624	C	20010815		
JP 10507457	T	19980721	JP 1996-513527	19951023
HU 77716	A2	19980728	HU 1998-766	19951023
HU 217207	B	19991228		
BR 9509406	A	19981103	BR 1995-9406	19951023
AT 188460	T	20000115	AT 1995-944807	19951023
RU 2146258	C1	20000310	RU 1997-107848	19951023
ES 2106700	T3	20000516	ES 1995-944807	19951023
PT 787115	T	20000531	PT 1995-944807	19951023
PL 184590	B1	20021129	PL 1995-319754	19951023
RO 118419	B1	20030530	RO 1997-721	19951023
SK 283877	B6	20040406	SK 1997-483	19951023
CZ 295528	B6	20050817	CZ 1997-1195	19951023
NO 9701645	A	19970507	NO 1997-1645	19970410
NO 313234	B1	20020902		
FI 9701609	A	19970602	FI 1997-1609	19970415
FI 114477	B1	20041029		
NO 9701796	A	19970528	NO 1997-1796	19970418
US 6043359	A	20000328	US 1997-839350	19970418
HU 9902446	A2	19991228	HU 1999-2446	19970421

10/573,517

HU 9902446	A3	20000428		
US 6407229	B1	20020618	US 1999-296609	19990423
GR 3032965	T3	20000731	GR 2000-400665	20000315
US 6369238	B1	20020409	US 2001-814778	20010323
PRIORITY APPLN. INFO.:			AT 1994-1980	A 19941021
			US 1995-487102	A 19950607
			WO 1995-AT208	W 19951023
			US 1997-839350	A3 19970418
			US 1999-296609	A3 19990423
OTHER SOURCE(S):			MARPAT 125:196086	
GI				



AB Title compds. I [R-R5 = H, halogen, OH, alkoxy, (un)substituted aliphatic, (un)substituted aryl, CHO, acyl, sulfonyl] were prepared from benzaldehydes via benzylamines. Thus, 6,3,4-Br(MeO)2C6H2CHO was treated with tyramine to give 6,3,4-Br(MeO)2C6H2CH2NHCH2CH2C6H4OH-4 which was N-formylated and cyclized to I [R = Me, R1 = Br, R2 = CHO, R3 = H, R4R5 = O]. The latter compound was reduced with DIBAL to give a mixture of bromogalanthamine [I, R = R2 = Me, R1 = Br, R3 = R5 = H, R4 = OH] and epibromogalanthamine [I, R = R2 = Me, R1 = Br, R3 = R4 = H, R5 = OH].

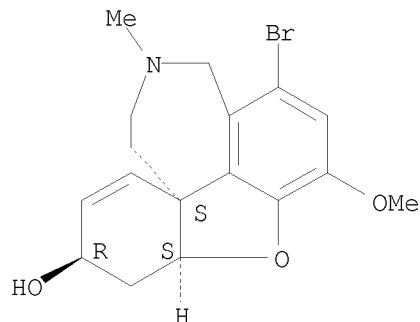
IT 179107-98-3P 179107-99-4P 179108-11-3P  
180854-29-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of galanthamine derivs.)

RN 179107-98-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

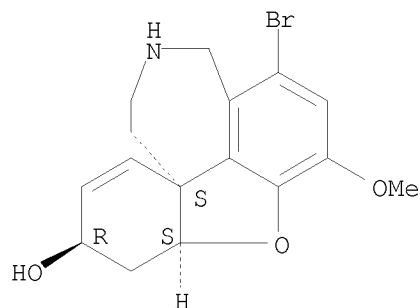
10/573,517



RN 179107-99-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 179108-11-3 CAPLUS

CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, [R-(R\*,R\*)]-, compd. with [4aR-(4aα,6β,8aR\*)]-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (9CI) (CA INDEX NAME)

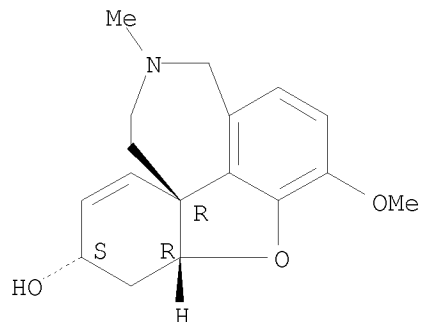
CM 1

CRN 60384-53-4

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (+).

10/573,517

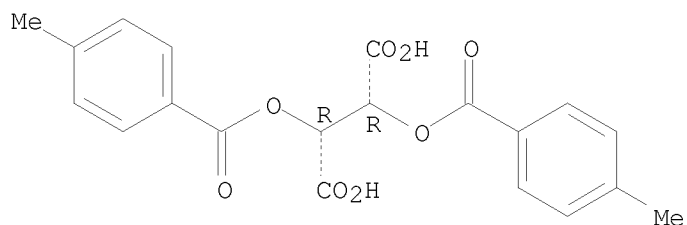


CM 2

CRN 32634-66-5

CMF C20 H18 O8

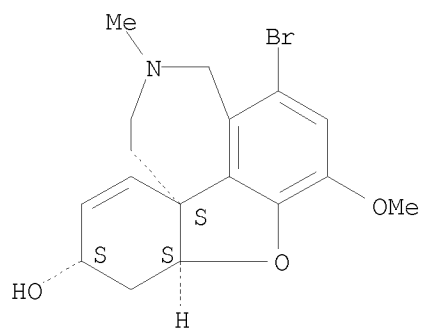
Absolute stereochemistry. Rotation (-).



RN 180854-29-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6R,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 179239-41-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of galanthamine derivs.)

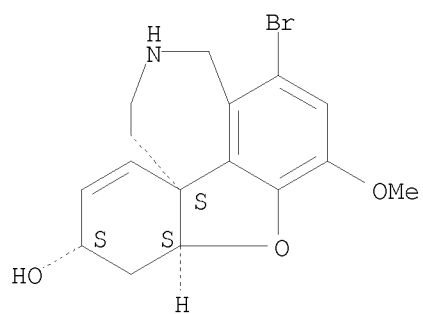
RN 179239-41-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6R,8aR)-rel- (CA INDEX NAME)



10/573,517

Relative stereochemistry.



L61 ANSWER 64 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:491941 CAPLUS

DOCUMENT NUMBER: 125:185640

ORIGINAL REFERENCE NO.: 125:34487a,34490a

TITLE: Nivalin P-induced changes in muscle fiber membrane processes

AUTHOR(S): Radicheva, N.; Vydevska, M.; Mileva, K.

CORPORATE SOURCE: Institute Biophysics, Bulgarian Academy Sciences, Sofia, Bulg.

SOURCE: Methods and Findings in Experimental and Clinical Pharmacology (1996), 18(5), 301-308

CODEN: MFEPDX; ISSN: 0379-0355

PUBLISHER: Prous

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Nivalin P, composed of Nivalin (galanthamine hydrobromide) and Pymadin (4-aminopyridine hydrochloride), acts as an enhancer of cholinergic function and is currently of interest in the treatment of diseases associated with disorders in the transmission of impulses in the central and peripheral nervous system. The purpose of this study was to elucidate the effects of direct application of Nivalin P on muscle fiber membrane processes. The effects of the two components Nivalin and Pymadin on elec. and mech. activity of treated isolated frog muscle fibers were also studied sep. Nivalin caused a decrease in the amplitude and an increase in the duration of intracellular (ICAP) and extracellular (ECAP) action potentials and total ionic current (Ii), probably acting to modulate nonspecific Na<sup>+</sup> conductance, thereby reducing Na<sup>+</sup> influx. Pymadin blocked K<sup>+</sup> conductance in the cell membrane, prolonging the ICAP repolarization phase and decreasing the outward phase of the Ii. The Ca<sup>2+</sup> channel kinetics and Ca<sup>2+</sup> release were also affected, and as a result, the twitch amplitude (TWA) of muscle fibers treated with both Nivalin and Pymadin was potentiated. Nivalin P, therefore, combines the effects of its two components on muscle fiber membrane properties, the most favorable of which is the increase in muscle fiber contractility.

IT 53321-09-8, Nivaline P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nivalin P-induced changes in muscle fiber membrane processes)

RN 53321-09-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

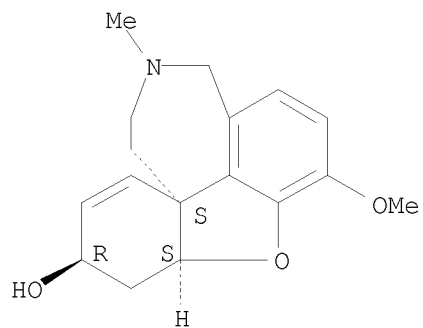
CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).

10/573,517

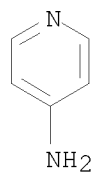


● HBr

CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H



● HCl

L61 ANSWER 65 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:457793 CAPLUS  
 DOCUMENT NUMBER: 125:114933  
 ORIGINAL REFERENCE NO.: 125:21591a,21594a  
 TITLE: Preparation of 4a,5,9,10,11,12-hexahydro-6H-benzofuro[3a,3,2-ef][2]benzazepine derivatives  
 INVENTOR(S): Czollner, Laszlo; Froehlich, Johannes; Jordis, Ulrich; Kueenburg, Bernhard  
 PATENT ASSIGNEE(S): Waldheim Pharmazeutika Gesellschaft M.B.H., Austria  
 SOURCE: PCT Int. Appl., 72 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9612692	A1	19960502	WO 1995-AT208	19951023
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AT 401058	B	19960625	AT 1994-1980	19941021
AT 9401980	A	19951015		
CA 2203183	A1	19960502	CA 1995-2203183	19951023
CA 2203183	C	20080408		
AU 9536938	A	19960515	AU 1995-36938	19951023
AU 695352	B2	19980813		
EP 787115	A1	19970806	EP 1995-944807	19951023
EP 787115	B1	20000105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10507457	T	19980721	JP 1996-513527	19951023
BR 9509406	A	19981103	BR 1995-9406	19951023
AT 188460	T	20000115	AT 1995-944807	19951023
RU 2146258	C1	20000310	RU 1997-107848	19951023
PL 184590	B1	20021129	PL 1995-319754	19951023
RO 118419	B1	20030530	RO 1997-721	19951023
SK 283877	B6	20040406	SK 1997-483	19951023
CZ 295528	B6	20050817	CZ 1997-1195	19951023
NO 9701645	A	19970507	NO 1997-1645	19970410
NO 313234	B1	20020902		
FI 9701609	A	19970602	FI 1997-1609	19970415
FI 114477	B1	20041029		
NO 9701796	A	19970528	NO 1997-1796	19970418
US 6043359	A	20000328	US 1997-839350	19970418
US 6407229	B1	20020618	US 1999-296609	19990423
GR 3032965	T3	20000731	GR 2000-400665	20000315
US 6369238	B1	20020409	US 2001-814778	20010323
PRIORITY APPLN. INFO.:			AT 1994-1980	A 19941021
			US 1995-487102	A 19950607
			WO 1995-AT208	W 19951023
			US 1997-839350	A3 19970418
			US 1999-296609	A3 19990423

10/573,517

OTHER SOURCE(S): CASREACT 125:114933; MARPAT 125:114933  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

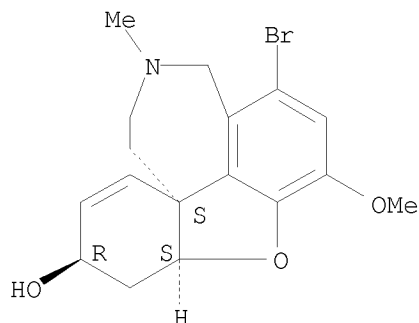
AB A process was developed for producing 4a,5,9,10,11,12-hexahydro-6H-benzofuro[3,2-ef][2]benzazepine derivs. I (R-R5 = H, halo, HO, alkoxy, alkyl, aryl, aralkyl, acyl, alkylsulfonyl, CHO, etc.; R4R5 may be oxo) in particular the production of galanthamine via the novel bromine-N-demethyl galanthamine II (X = H) and the novel bromine galanthamine II (X = Me). Thus, the benzylamine III is oxidatively cyclized into IV. IV is diastereo-selectively reduced by L-selectride to the novel bromine-N-demethyl galanthamine II (X = H) without the formation of detectable quantities of epibromine-N-demethyl galanthamine. The novel bromine galanthamine II (X = Me) is obtained by methylation, from which by debromination (±)-galanthamine is produced. Pure enantiomers can be demonstrated by precipitation as a salt of a chiral acid (especially a tartrate). The process gives high yields and pure products at all stages and can thus be conducted on the industrial scale.

IT 179107-98-3P 179107-99-4P 179108-03-3P  
179108-10-2P 179108-11-3P 179239-41-9P  
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of 4a,5,9,10,11,12-hexahydro-6h-benzofuro[3a,3,2-ef][2]benzazepine)

RN 179107-98-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aR,6S,8aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

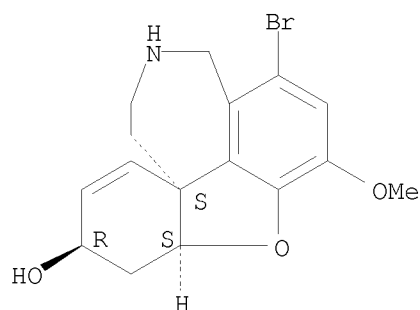


RN 179107-99-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6S,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.

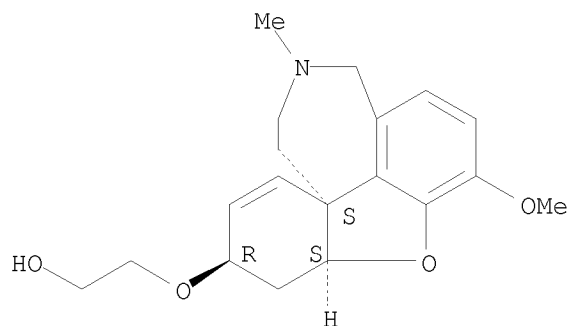
10/573,517



RN 179108-03-3 CAPLUS

CN Ethanol, 2-[[[(4aR,6S,8aR)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl]oxy]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 179108-10-2 CAPLUS

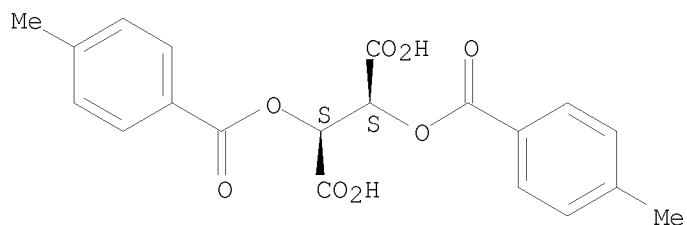
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, (2S,3S)-, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (CA INDEX NAME)

CM 1

CRN 32634-68-7

CMF C20 H18 O8

Absolute stereochemistry. Rotation (+).

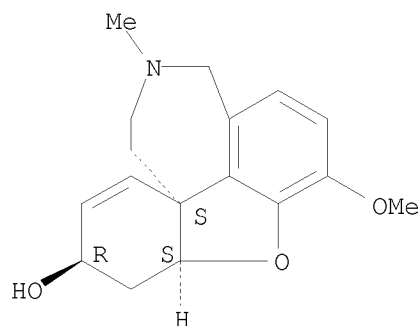


CM 2

10/573,517

CRN 357-70-0  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).

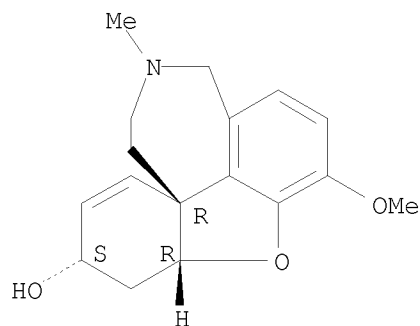


RN 179108-11-3 CAPLUS  
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, [R-(R\*,R\*)]-, compd.  
with [4aR-(4a $\alpha$ ,6 $\beta$ ,8aR\*)]-4a,5,9,10,11,12-hexahydro-3-methoxy-11-  
methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:1) (9CI) (CA INDEX  
NAME)

CM 1

CRN 60384-53-4  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (+).

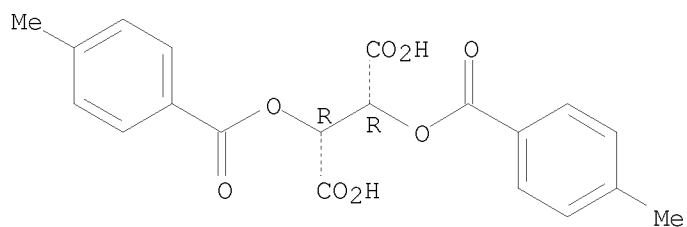


CM 2

CRN 32634-66-5  
CMF C20 H18 O8

Absolute stereochemistry. Rotation (-).

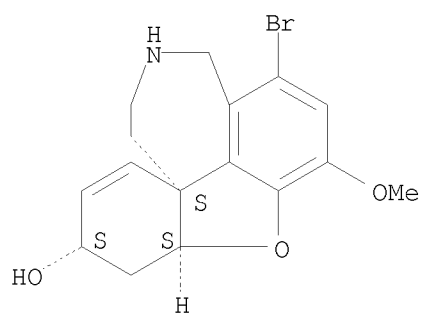
10/573,517



RN 179239-41-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 1-bromo-4a,5,9,10,11,12-hexahydro-3-methoxy-, (4aR,6R,8aR)-rel- (CA INDEX NAME)

Relative stereochemistry.





L61 ANSWER 66 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:750447 CAPLUS

DOCUMENT NUMBER: 123:193644

ORIGINAL REFERENCE NO.: 123:34389a,34392a

TITLE: Alkaloids of *Galanthus elwesii*.AUTHOR(S): Latvala, Anita; Oenuer, Mustafa A.; Goetzler, Tekant;  
Linden, Anthony; Kivcak, Bijen; Hesse, ManfredCORPORATE SOURCE: Inst. Org. Chem., Univ. Zurich, Zurich, CH-8057,  
Switz.

SOURCE: Phytochemistry (1995), 39(5), 1229-40

CODEN: PYTCAS; ISSN: 0031-9422

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Six new lycorenine-type alkaloids, (+)-5-methoxy-9-O-demethylhomolycorine, (+)-galwesine, (+)-9-O-demethylgalwesine, (+)-16-hydroxygalwesine, (+)-16-hydroxy-9-O-demethylgalwesine and galasine, were isolated from whole plants of *G. elwesii*. Addnl., 12 known alkaloids, (-)-galanthamine, (-)-sanguinine, (-)-leucotamine, (-)-O-methylleucotamine, ( $\pm$ )-narwedine, (-)-N-demethylgalanthamine, (+)-11-hydroxyvittatine, (+)-9-O-demethylhomolycorine, (-)-lycorine, (-)-galanthine, hordenine, and (E)-N-feruloyltyramine were also obtained. Of these alkaloids, only galanthamine and lycorine have been isolated previously from *G. elwesii*. Identification and structural elucidation were achieved using spectrometric techniques.

IT 357-70-0P, (-)-Galanthamine 41303-74-6P

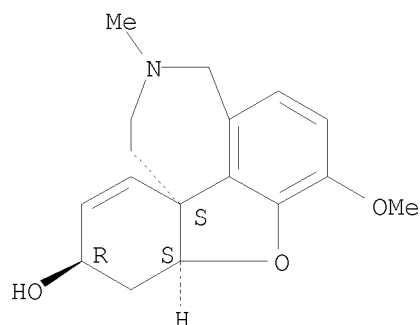
82644-83-5P, O-Methylleucotamine

RL: PUR (Purification or recovery); PREP (Preparation)  
(of *Galanthus elwesii*)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

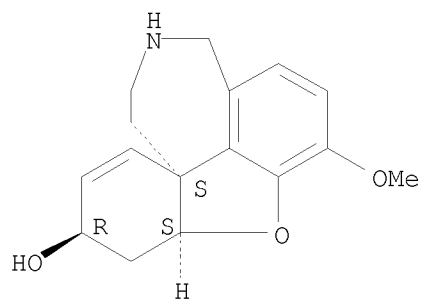


RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

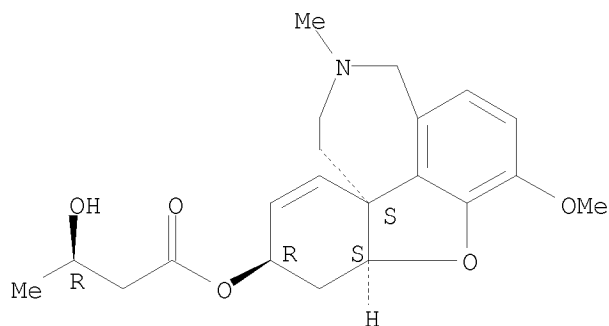
10/573,517



RN 82644-83-5 CAPLUS

CN Butanoic acid, 3-hydroxy-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, (3R)-(CA INDEX NAME)

Absolute stereochemistry.



L61 ANSWER 67 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:665127 CAPLUS

DOCUMENT NUMBER: 123:56364

ORIGINAL REFERENCE NO.: 123:10167a,10170a

TITLE: Galanthamine derivatives, a process for their preparation and their use as medicaments.

INVENTOR(S): Kosley, Raymond W., Jr.; Davis, Larry; Taberna, Veronica

PATENT ASSIGNEE(S): Hoechst-Roussel Pharmaceuticals Inc., USA

SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

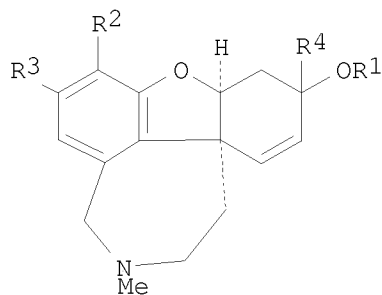
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 653427	A1	19950517	EP 1994-115959	19941010
EP 653427	B1	20020123		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
US 6323195	B1	20011127	US 1993-137440	19931015
EP 1020470	A2	20000719	EP 2000-107570	19941010
EP 1020470	A3	20000726		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
AT 212348	T	20020215	AT 1994-115959	19941010
PT 653427	T	20020628	PT 1994-115959	19941010
ES 2171428	T3	20020916	ES 1994-115959	19941010
FI 9404821	A	19950416	FI 1994-4821	19941013
FI 108723	B1	20020315		
RU 2114850	C1	19980710	RU 1994-36448	19941013
IL 111274	A	20001121	IL 1994-111274	19941013
CA 2118174	A1	19950416	CA 1994-2118174	19941014
CA 2118174	C	20000118		
NO 9403893	A	19950418	NO 1994-3893	19941014
NO 310415	B1	20010702		
AU 9475814	A	19950504	AU 1994-75814	19941014
AU 696249	B2	19980903		
ZA 9408062	A	19950606	ZA 1994-8062	19941014
CN 1111245	A	19951108	CN 1994-117060	19941014
CN 1039911	C	19980923		
KR 169114	B1	19990115	KR 1994-26303	19941014
RO 114133	B1	19990129	RO 1994-1669	19941014
PL 177730	B1	20000131	PL 1994-305456	19941014
CZ 287071	B6	20000816	CZ 1994-2546	19941014
JP 07188240	A	19950725	JP 1994-250778	19941017
US 5777108	A	19980707	US 1995-445921	19950522
PRIORITY APPLN. INFO.:			US 1993-137440	A 19931015
			EP 1994-115959	A3 19941010
OTHER SOURCE(S):	MARPAT	123:56364		
GI				



I

AB Galanthamine derivs. I (R1 = H alkylcarbonyl, alkoxycarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl; R2 = H, alkenylcarbonyloxy, cycloalkylcarbonyloxy, cycloalkylaminocarbonyloxy, alkynylcarbonyloxy, cycloalkylalkylcarbonyloxy, heterocyclyloxy, heterocyclocarbonyloxy, haloalkylsulfonyloxy, alkylsilyloxy; R3 = H, halo, alkyl; R4 = H, alkyl; R1 and R2 are not both hydrogen when R3 and R4 are H) and their pharmaceutically acceptable addition salts were prepared for the treatment of memory dysfunction characterized by decreased cholinergic function. Thus, galanthamine was demethylated by treatment with ethanethiol and BuLi in DMF to give 6-O-demethylgalanthamine, which was treated with 1,2,3,4-tetrahydroisoquinoline and carbonyldiimidazole in dichloromethane to give 6-O-demethyl-6-O-(1,2,3,4-tetrahydroisoquinolin-2-ylcarbonyl)galanthamine.

IT 357-70-0P, Galanthamine 5072-47-9P

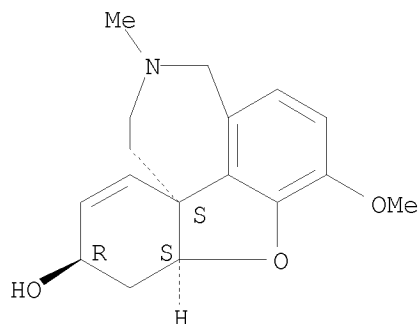
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of galanthamine derivs. for treatment of memory dysfunction characterized by decreased cholinergic function)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

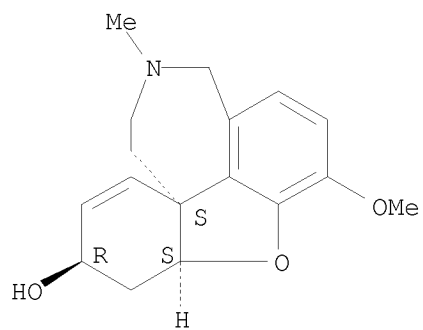


RN 5072-47-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

10/573,517

Absolute stereochemistry. Rotation (-).



● HCl

L61 ANSWER 68 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:665086 CAPLUS

DOCUMENT NUMBER: 123:56362

ORIGINAL REFERENCE NO.: 123:10167a,10170a

TITLE: Galanthamine derivates, a process for their preparation and their use as medicaments.

INVENTOR(S): Kosley, Raymond W., Jr.; Davis, Larry; Taberna, Veronica

PATENT ASSIGNEE(S): Hoechst-Roussel Pharmaceuticals Inc., USA

SOURCE: Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

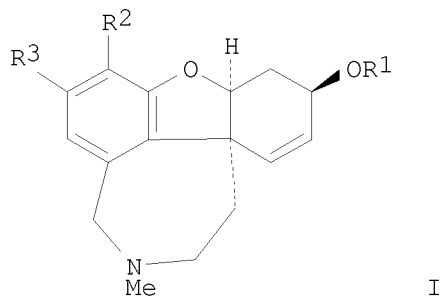
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

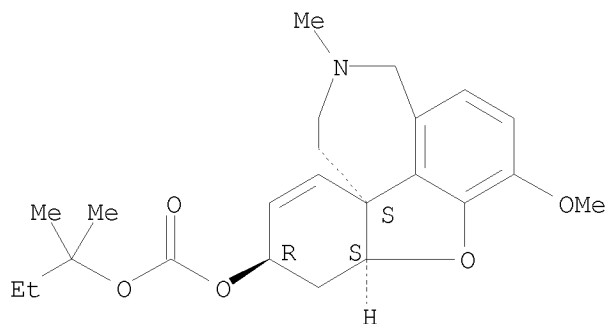
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
EP 649846	A1	19950426	EP 1994-115961	19941010
EP 649846	B1	20020102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
US 6316439	B1	20011113	US 1993-137444	19931015
AT 211474	T	20020115	AT 1994-115961	19941010
PT 649846	T	20020628	PT 1994-115961	19941010
ES 2170759	T3	20020816	ES 1994-115961	19941010
FI 9404823	A	19950416	FI 1994-4823	19941013
FI 108722	B1	20020315		
RU 2109743	C1	19980427	RU 1994-36745	19941013
IL 111275	A	20030112	IL 1994-111275	19941013
CA 2118172	A1	19950416	CA 1994-2118172	19941014
CA 2118172	C	20000104		
NO 9403895	A	19950418	NO 1994-3895	19941014
NO 307464	B1	20000410		
AU 9475813	A	19950504	AU 1994-75813	19941014
AU 696170	B2	19980903		
ZA 9408061	A	19950606	ZA 1994-8061	19941014
CN 1108657	A	19950920	CN 1994-117062	19941014
CN 1039910	C	19980923		
CZ 283731	B6	19980617	CZ 1994-2545	19941014
RO 114134	B1	19990129	RO 1994-1670	19941014
KR 227957	B1	19991101	KR 1994-26305	19941014
PL 177549	B1	19991231	PL 1994-305457	19941014
JP 07188239	A	19950725	JP 1994-250777	19941017
PRIORITY APPLN. INFO.:			US 1993-137444	A 19931015
OTHER SOURCE(S):	MARPAT	123:56362		
GI				



- AB Galanthamine derivs. I (R1 = H alkylcarbonyl, alkoxycarbonyl, arylalkylaminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl; R2 = alkylcarbonyloxy, arylalkylcarbonyloxy, alkoxycarbonyloxy, arylcarbonyloxy, hydroxy, alkoxycarbonylalkoxy, hydroxyalkoxy; R3 = H, halo, alkyl) and their pharmaceutically acceptable addition salts were prepd for the treatment of memory dysfunction characterized by decreased cholinergic function. Thus, galanthamine was demethylated by treatment with ethanethiol and BuLi in DMF yo give 6-O-demethylgalanthamine, which was treated with acetic anhydride in THF to give 6-O-demethyl-6-O-acetylgalanthamine.
- IT 164723-58-4P 164723-90-4P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of galanthamine derivs. for the treatment of memory dysfunction characterized by decreased cholinergic function)
- RN 164723-58-4 CAPLUS
- CN Carbonic acid, 1,1-dimethylpropyl 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

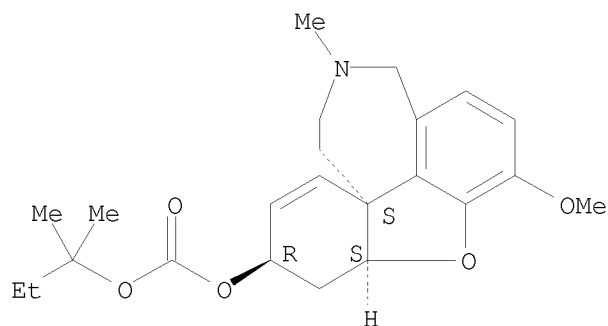


RN 164723-90-4 CAPLUS

10/573,517

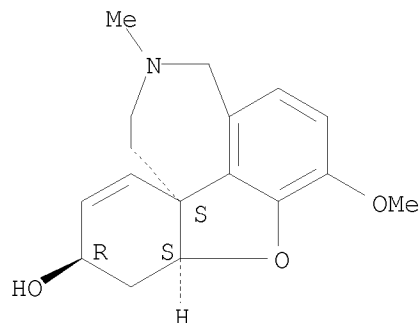
CN Carbonic acid, 1,1-dimethylpropyl 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, [4aS-(4a $\alpha$ ,6 $\beta$ ,8aR\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 357-70-0, Galanthamine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of galanthamine derivs. for the treatment of memory dysfunction characterized by decreased cholinergic function)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).





L61 ANSWER 69 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:609391 CAPLUS

DOCUMENT NUMBER: 123:187732

ORIGINAL REFERENCE NO.: 123:33053a,33056a

TITLE: Three-dimensional quantitative structure-activity relationship studies of galanthamine and its analogs

AUTHOR(S): Luo, Zhaowen; Wang, Dandan; Lai, Luha; Xu, Xiaojie; Li, chongxi

CORPORATE SOURCE: Dep. Chem., Peking Univ., Beijing, 100871, Peop. Rep. China

SOURCE: Wuli Huaxue Xuebao (1995), 11(5), 419-23

CODEN: WHXUEU; ISSN: 1000-6818

PUBLISHER: Beijing Daxue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB Galanthamine is an inhibitor of acetylcholinesterase and a potent drug to treat Alzheimer's disease. According to the known pharmacol. characterization of galanthamine and its analogs, we conducted 3D-QSAR studies on this kind of compds. The lowest energy conformations of compds. were obtained from mol. mechanics calcns. These conformations were used in the CoMFA anal. and 3D-QSAR was constructed. The dominant factor which affects activity was the steric effect, whereas electrostatic effect played an unimportant role. On the analysis of steric effect, we found that replacement of the large group decreased the the activity. The electrostatic features in different position were also determined

IT 357-70-0, Galanthamine 3891-74-5, Galanthamine methiodide 27281-90-9 31504-42-4 41303-74-6, N-Demethylgalanthamine 99018-91-4 121326-58-7, Galanthamine phenyl carbamate 121326-59-8 138963-44-7 146274-39-7, o-Triisopropylsilylgalanthamine 146274-40-0 146475-70-9, 10-Allylgalanthaminium bromide 146504-29-2, 10-Benzylgalanthaminium bromide

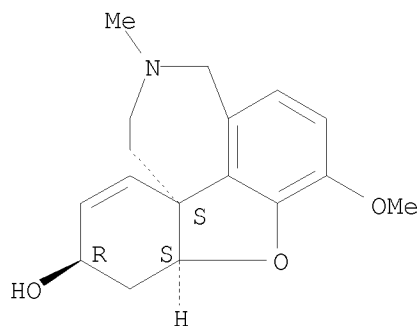
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(three-dimensional quant. structure-activity relationship studies of galanthamine and its analogs as acetylcholinesterase inhibitors)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

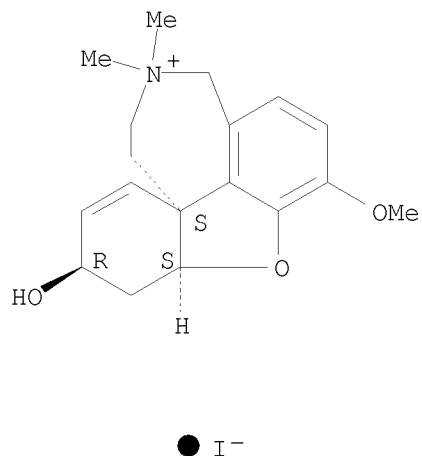


RN 3891-74-5 CAPLUS

10/573,517

CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 1,2,3,4,8,8a-hexahydro-7-hydroxy-10-methoxy-2,2-dimethyl-, iodide (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

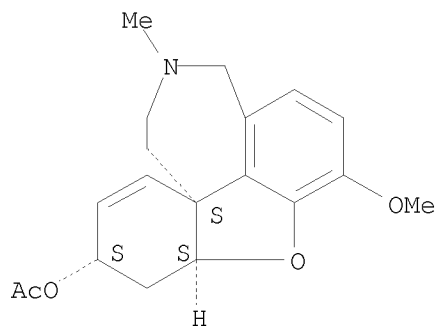
Absolute stereochemistry.



RN 27281-90-9 CAPLUS

CN Galanthamine, acetate (ester), (3 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

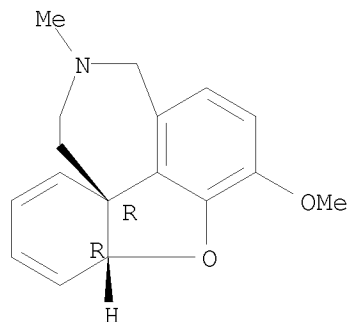


RN 31504-42-4 CAPLUS

CN Galanthamine, 3,4-didehydro-3-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

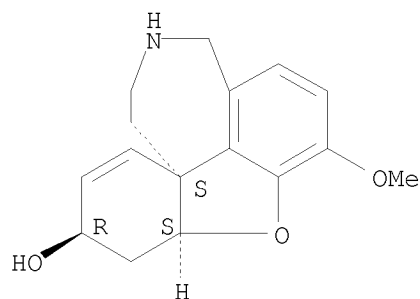
10/573,517



RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

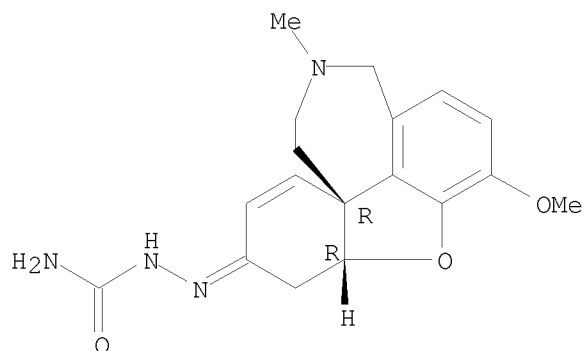
Absolute stereochemistry. Rotation (-).



RN 99018-91-4 CAPLUS

CN Galanthamine, 3-deoxy-3-oxo-, (aminocarbonyl)hydrazone (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.

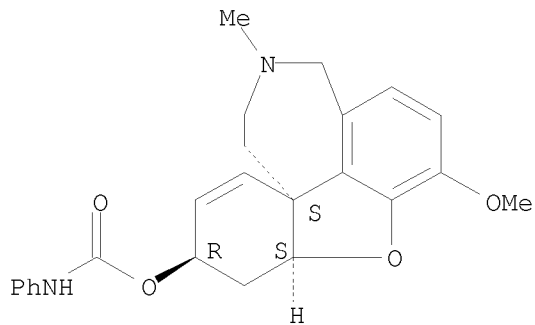


RN 121326-58-7 CAPLUS

CN Galanthamine, phenylcarbamate (ester) (9CI) (CA INDEX NAME)

10/573,517

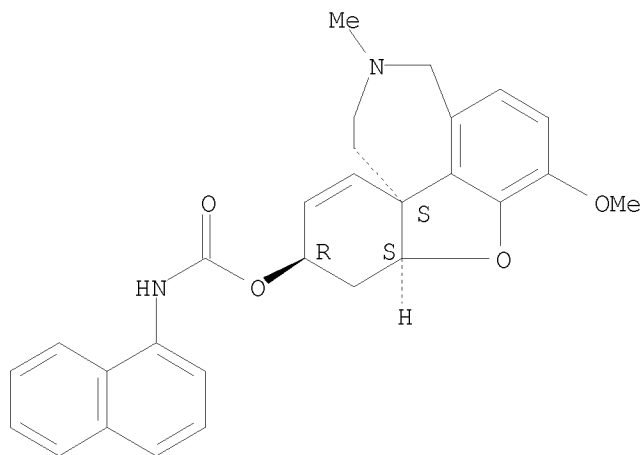
Absolute stereochemistry.



RN 121326-59-8 CAPLUS

CN Carbamic acid, 1-naphthalenyl-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (9CI)  
(CA INDEX NAME)

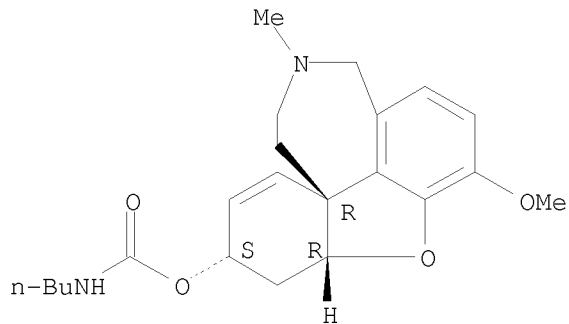
Absolute stereochemistry.



RN 138963-44-7 CAPLUS

CN	Galanthamine, butylcarbamate (ester) (9CI)	(CA INDEX NAME)
----	--	-----------------

Absolute stereochemistry.

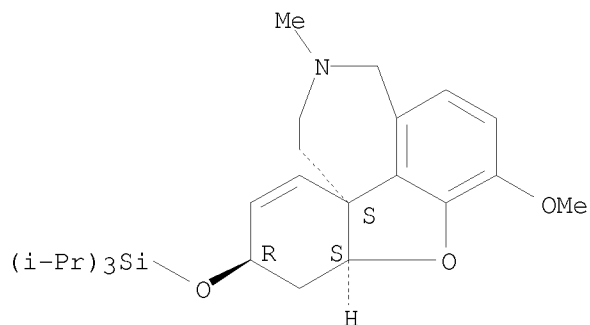


10/573,517

RN 146274-39-7 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6-[[tris(1-methylethyl)silyl]oxy]-, (4aS,6R,8aS)- (CA INDEX NAME)

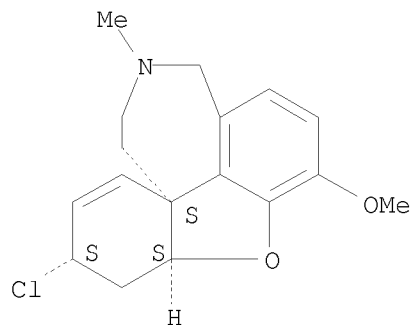
Absolute stereochemistry.



RN 146274-40-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 6-chloro-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6S,8aS)- (CA INDEX NAME)

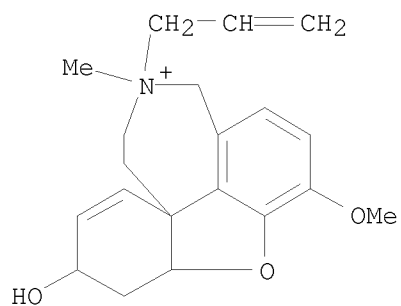
Absolute stereochemistry. Rotation (-).



RN 146475-70-9 CAPLUS

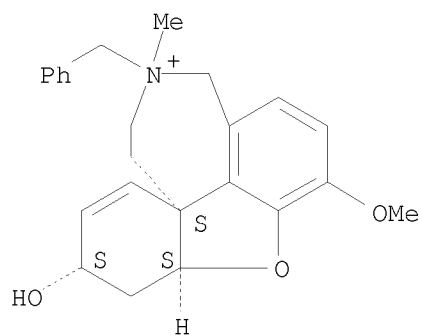
CN Galanthaminium, 10-(2-propen-1-yl)-, bromide (1:1) (CA INDEX NAME)

10/573,517



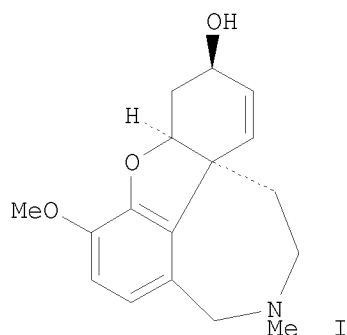
RN 146504-29-2 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-11-ium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-(phenylmethyl)-, bromide (1:1), (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



L61 ANSWER 70 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:389458 CAPLUS  
 DOCUMENT NUMBER: 122:240093  
 ORIGINAL REFERENCE NO.: 122:43893a,43896a  
 TITLE: Facile synthesis of (±)-, (+)-, and  
 (-)-galanthamine  
 AUTHOR(S): Szewczyk, Jerzy; Wilson, Joseph W.; Lewin, Anita H.;  
 Carroll, F. Ivy  
 CORPORATE SOURCE: Chem. Life Sci., Res. Triangle Inst., Research  
 Triangle Park, NC, 27709, USA  
 SOURCE: Journal of Heterocyclic Chemistry (1995), 32(1), 195-9  
 CODEN: JHTCAD; ISSN: 0022-152X  
 PUBLISHER: HeteroCorporation  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 122:240093  
 GI



AB The Amaryllideacea alkaloid galanthamine is an acetylcholinesterase inhibitor that has been evaluated as a potential agent for the treatment of Alzheimer's disease. A very efficient synthesis of (±)-galanthamine [(±)-I] was achieved from readily available isovanillin and tyramine. Racemic galanthamine was separated into its diastereoisomeric (1S)-camphanate esters and obtained both natural (-)- and unnatural (+)-galanthamine by lithium aluminum hydride removal of the acyl group.

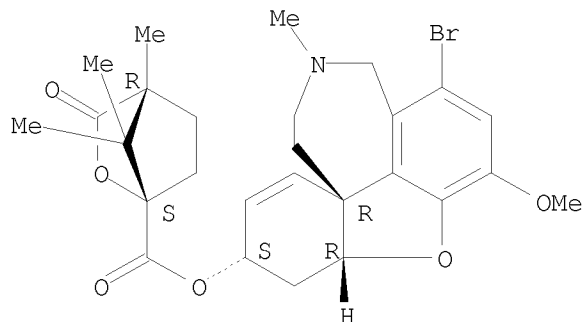
IT 162334-99-8P 162428-79-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (facile synthesis of galanthamine)

RN 162334-99-8 CAPLUS

CN Galanthamine, 8-bromo-, 4,7,7-trimethyl-3-oxo-2-oxabicyclo[2.2.1]hept-1-yl ester, [3α(1S,4R),4aβ,4bβ]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

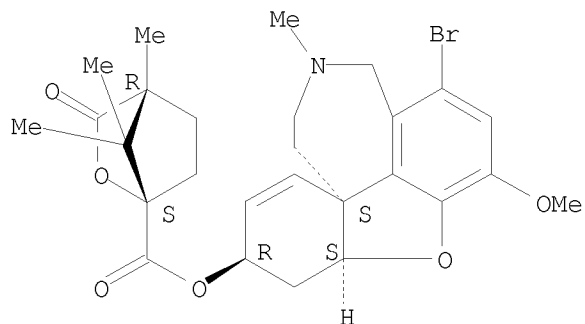
10/573,517



RN 162428-79-7 CAPLUS

CN Galanthamine, 8-bromo-, 4,7,7-trimethyl-3-oxo-2-oxabicyclo[2.2.1]hept-1-yl ester, [3(1S,4R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

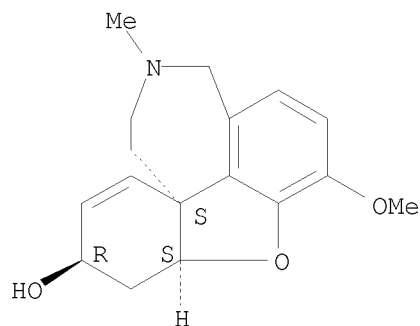


IT 357-70-0P, (-)-Galanthamine 5072-47-9P, (-)-Galanthamine hydrochloride 162335-00-4P, (+)-Galanthamine hydrochloride  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(facile synthesis of galanthamine)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



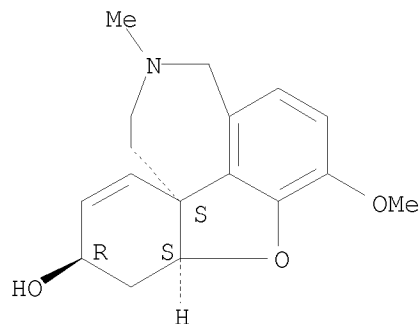
RN 5072-47-9 CAPLUS



10/573,517

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

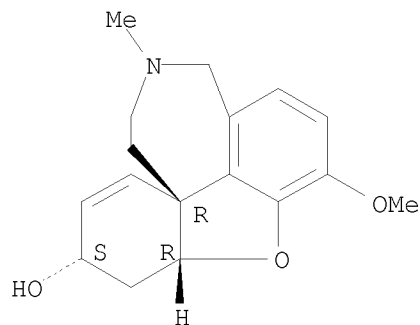


● HCl

RN 162335-00-4 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aR,6S,8aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



● HCl

L61 ANSWER 71 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:111113 CAPLUS

DOCUMENT NUMBER: 122:10322

ORIGINAL REFERENCE NO.: 122:2297a,2300a

TITLE: Formation, x-ray crystal structure, and absolute configuration of (-)-N-(chloromethyl)galanthaminium chloride

AUTHOR(S): Matusch, Rudolf; Kreh, Mirko; Mueller, Ulrich

CORPORATE SOURCE: Institut fur Pharmazeutische Chemie, Philipps-Universitat, Marburg, D-35032, Germany

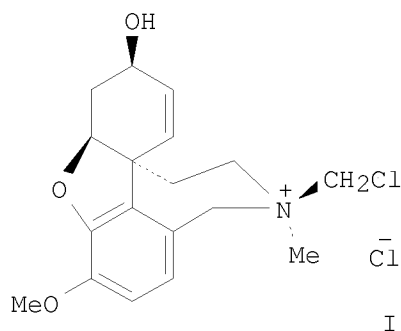
SOURCE: Helvetica Chimica Acta (1994), 77(6), 1611-15

CODEN: HCACAV; ISSN: 0018-019X

DOCUMENT TYPE: Journal

LANGUAGE: German

GI



AB The acetylcholinesterase inhibitor galanthamine, main alkaloid of several Narcissus species, readily forms a quaternary ammonium salt by reaction with the solvent CH<sub>2</sub>Cl<sub>2</sub>. The structure and absolute configuration of (-)-N-(chloromethyl)galanthaminium chloride (I) were determined by x-ray diffraction and NMR spectroscopy. The tetragonal crystals (space group P4<sub>3</sub>) contain two crystallog. independent cations which do not differ significantly from one another. The CH<sub>2</sub>Cl group is attached to the quaternary N-atom in stereospecific (R)-configuration. In the crystal, the configurational position of the Me group at the N-atom of I differs from that of the crystalline free base. Hydrogen bonding is observed from the

OH group at C(3) of I to the Cl<sup>-</sup> anion or to the Cl-atom of an adjacent cation.

IT 159389-11-4P

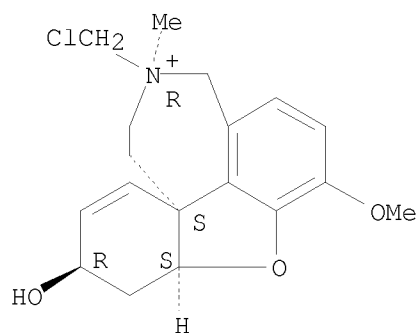
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation, crystal structure, and absolute configuration of (-)-N-(chloromethyl)galanthaminium chloride)

RN 159389-11-4 CAPLUS

CN Galanthaminium, 10-(chloromethyl)-, chloride, (10β)- (9CI) (CA INDEX NAME)

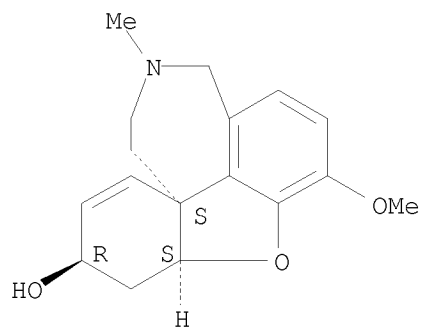
Absolute stereochemistry.

10/573,517



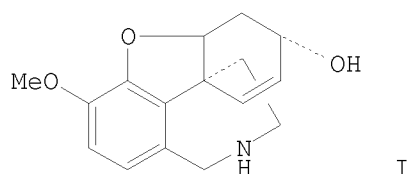
IT 357-70-0, (-)-Galanthamine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation, crystal structure, and absolute configuration of  
(-)-N-(chloromethyl)galanthaminium chloride)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



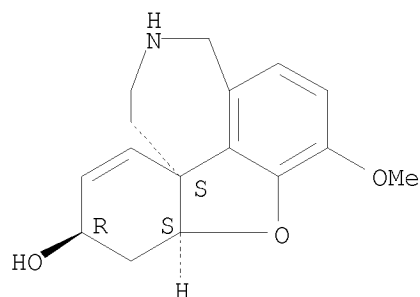
L61 ANSWER 72 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:453881 CAPLUS  
 DOCUMENT NUMBER: 121:53881  
 ORIGINAL REFERENCE NO.: 121:9651a,9654a  
 TITLE: Narcissus alkaloids. Part 19. Alkaloids from Narcissus leonensis  
 AUTHOR(S): Bastida, Jaume; Viladomat, Francesc; Bergonon, Salvador; Fernandez, Juan marcos; Codina, Carles; Rubiralta, Mario; Quirion, Jean Charles  
 CORPORATE SOURCE: Fac. Farm., Univ. Barcelona, Barcelona, 08028, Spain  
 SOURCE: Phytochemistry (1993), 34(6), 1656-8  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB The new alkaloids epinorgalanthamine (I) and epinorlycoramine (II) have been isolated from whole plants of Narcissus leonensis. Their structures and stereochem. were established by phys. and spectroscopic methods.  
 IT 41303-74-6, Norgalanthamine  
 RL: BIOL (Biological study)  
 (from Narcissus leonensis)  
 RN 41303-74-6 CAPLUS  
 CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

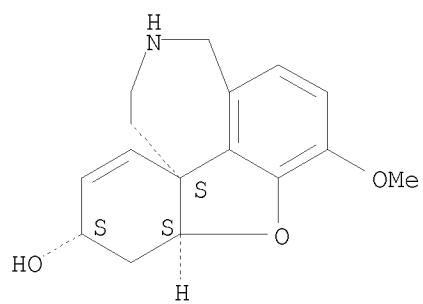
Absolute stereochemistry. Rotation (-).



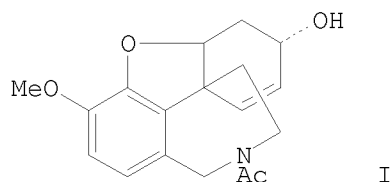
IT 156040-03-8  
 RL: PROC (Process)  
 (structure and isolation of, from Narcissus leonensis)  
 RN 156040-03-8 CAPLUS  
 CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10S,12aS)- (CA INDEX NAME)

10/573,517

Absolute stereochemistry. Rotation (-).

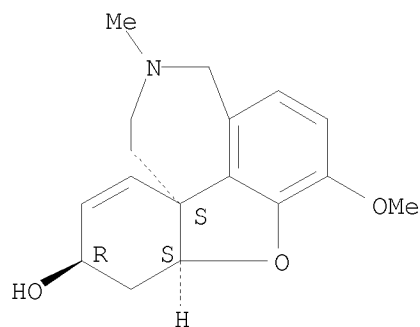


L61 ANSWER 73 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1994:158777 CAPLUS  
 DOCUMENT NUMBER: 120:158777  
 ORIGINAL REFERENCE NO.: 120:27849a,27852a  
 TITLE: Narcisine, an alkaloid from Narcissus tazetta  
 AUTHOR(S): Abdallah, Omar M.  
 CORPORATE SOURCE: Fac. Pharm., Assiut Univ., Assiut, Egypt  
 SOURCE: Phytochemistry (1993), 34(5), 1447-8  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB The isolation of lycorine, pseudolycorine, galanthamine, haemanthamine, tazettine, pretazettine and the new alkaloid narcisine (I) from N. tazetta bulbs is reported. Structural elucidation was carried out by spectroscopic anal.  
 IT 357-70-0, Galanthamine  
 RL: BIOL (Biological study)  
 (of Narcissus tazetta bulbs)  
 RN 357-70-0 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

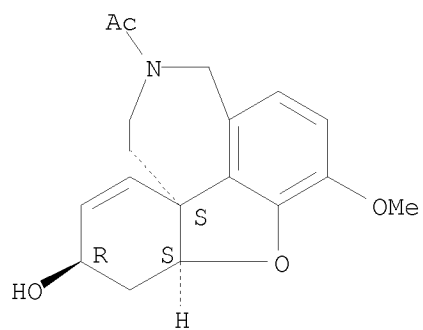
Absolute stereochemistry. Rotation (-).



IT 107894-72-4, Narcisine  
 RL: BIOL (Biological study)  
 (of Narcissus tazetta bulbs, isolation and structure of)  
 RN 107894-72-4 CAPLUS  
 CN Ethanone, 1-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517



L61 ANSWER 74 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:14999 CAPLUS

DOCUMENT NUMBER: 120:14999

ORIGINAL REFERENCE NO.: 120:2877a,2880a

TITLE: Enzyme immunoassay for the quantitative determination of galanthamine

AUTHOR(S): Poulev, Alexander; Deus-Neumann, Brigitte; Zenk, Meinhard H.

CORPORATE SOURCE: Univ. Muenchen, Munich, D-80333, Germany

SOURCE: Planta Medica (1993), 59(5), 442-6

CODEN: PLMEAA; ISSN: 0032-0943

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An enzyme immunoassay for the quantitation of fmol amts. of the therapeutically important Amaryllidaceae alkaloid, galanthamine, was established. The antiserum was raised against a conjugate of galanthamine-2-O-hemisuccinate-bovine serum albumin. The antibodies used were isolated and purified by Rivanol treatment with subsequent (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> precipitation. The measuring range of the assay extends from 2 to 100 pg of galanthamine, and as little as 3.5 fmol may be detected. The antibodies are highly specific for galanthamine, showing no cross reactivity with several Amaryllidaceae alkaloids. This assay allows the rapid, sensitive and precise quantitation of galanthamine in unpurified plant exts. as well as biol. fluids. The galanthamine content in a variety of herbarium material as well as the frequency distribution of galanthamine in 1000 *Leucojum aestivum* plants from various origins in South Bulgaria have been investigated. The preliminary results demonstrate that the galanthamine-specific enzyme immunoassay can be a useful tool in medicinal plant breeding, for screening programs, as well as for taxonomic and pharmacokinetic studies.

IT 127414-09-9D, Galanthamine 2-O-hemisuccinate, reaction products with albumins

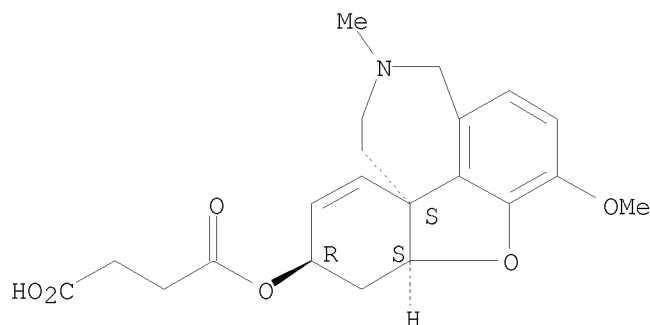
RL: ANST (Analytical study)

(antibodies to, in enzyme immunoassay for galanthamine)

RN 127414-09-9 CAPLUS

CN Galanthamine, hydrogen butanedioate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 357-70-0, Galanthamine

RL: ANT (Analyte); ANST (Analytical study)

(determination of, by enzyme immunoassay)

RN 357-70-0 CAPLUS

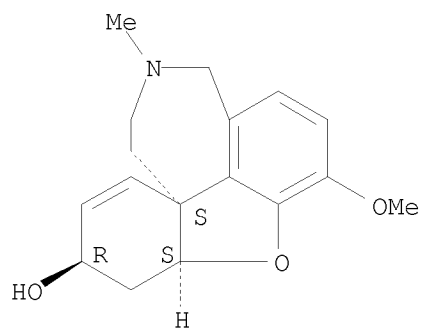
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-



10/573,517

methoxy-11-methyl-, (4a*S*,6*R*,8a*S*)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L61 ANSWER 75 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:147838 CAPLUS

DOCUMENT NUMBER: 118:147838

ORIGINAL REFERENCE NO.: 118:25435a,25438a

TITLE: Chemical and pharmacological characterization of galanthamine, an acetylcholinesterase inhibitor, and its derivatives. A potential application in Alzheimer's disease?

AUTHOR(S): Han, S. Y.; Sweeney, J. E.; Bachman, E. S.; Schweiger, E. J.; Forloni, G.; Coyle, J. T.; Davis, B. M.; Joullie, M. M.

CORPORATE SOURCE: Dep. Chem., Univ. Pennsylvania, Philadelphia, PA, 19104-6323, USA

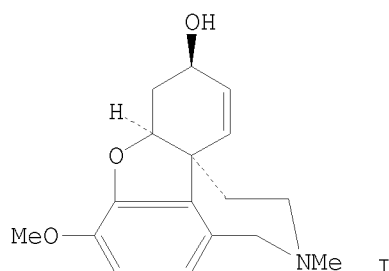
SOURCE: European Journal of Medicinal Chemistry (1992), 27(7), 673-87

CODEN: EJMCA5; ISSN: 0223-5234

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Galanthamine (I), a cortical acetylcholinesterase (AChE) inhibitor, and 19 structural analogs were prepared for a pharmacol. study. Systematic derivatization of galanthamine at the cyclohexene ring, tertiary amino, hydroxyl and methoxyl functions indicated that these structural features are essential for biol. activity. Mol. modeling studies suggested that the low energy conformations of the analogs are similar to that of the parent. One derivative, galanthamine Bu carbamate, had an LD50 of over 100 mg/kg (i.p.) in mice. In a passive avoidance paradigm, this analog improved performance in a dose-dependent fashion with a peak effect at 0.1 mg/kg in control and 0.5 mg/kg in basal forebrain lesioned mice. In the same paradigm, the peak effect of the parent compound is a 6-fold higher dose. With this surprisingly high therapeutic ratio, this compound may be of interest in treating cholinergic deficits of the central nervous system such as Alzheimer's disease.

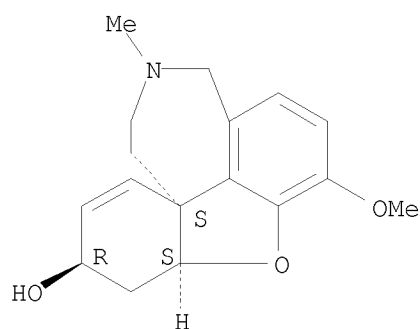
IT 1953-04-4, Galanthamine hydrobromide  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (neutralization of)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

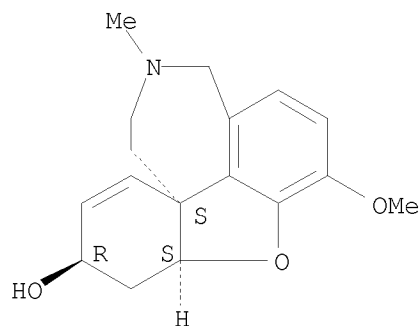
10/573,517



● HBr

IT 357-70-0P, Galanthamine 3891-74-5P, Galanthamine  
methiodide 27281-90-9P 31504-42-4P 99018-91-4P  
121326-58-7P, Galanthamine phenylcarbamate 121326-59-8P  
138963-44-7P, Galanthamine butylcarbamate 146274-39-7P,  
O-Triisopropylsilylgalanthamine 146274-40-0P  
146475-70-9P 146504-29-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and acetylcholinesterase inhibition activity of)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

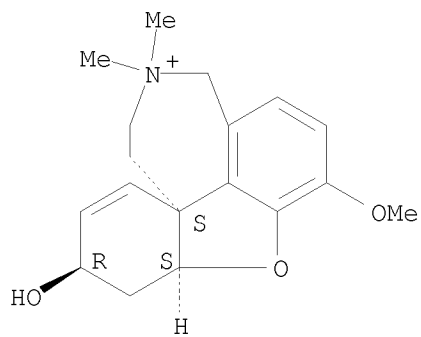
Absolute stereochemistry. Rotation (-).



RN 3891-74-5 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 1,2,3,4,8,8a-hexahydro-7-hydroxy-  
10-methoxy-2,2-dimethyl-, iodide (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

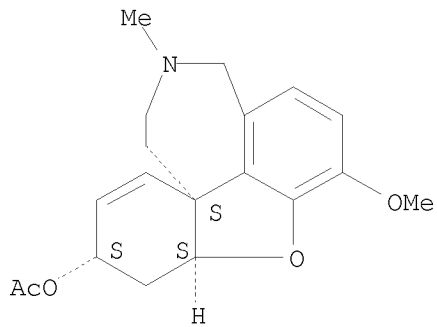
10/573,517



RN 27281-90-9 CAPLUS

CN	Galanthamine, acetate (ester), (3 $\alpha$ )- (9CI)	(CA INDEX NAME)
----	---	-----------------

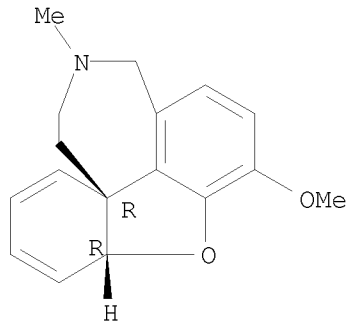
Absolute stereochemistry.



RN 31504-42-4 CAPLUS

CN	Galanthamine, 3,4-didehydro-3-deoxy- (9CI)	(CA INDEX NAME)
----	--	-----------------

Absolute stereochemistry.



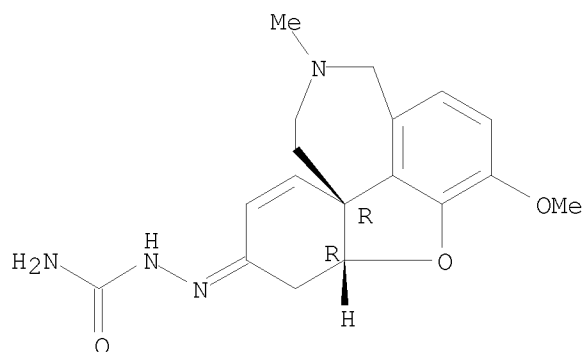
RN 99018-91-4 CAPLUS

CN Galanthamine, 3-deoxy-3-oxo-, (aminocarbonyl)hydrazone (9CI) (CA INDEX

10/573,517

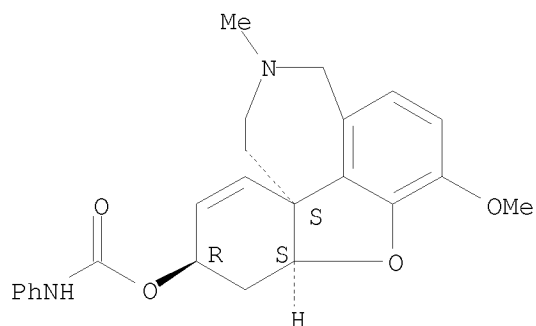
NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



RN 121326-58-7 CAPLUS  
CN Galanthamine, phenylcarbamate (ester) (9CI) (CA INDEX NAME)

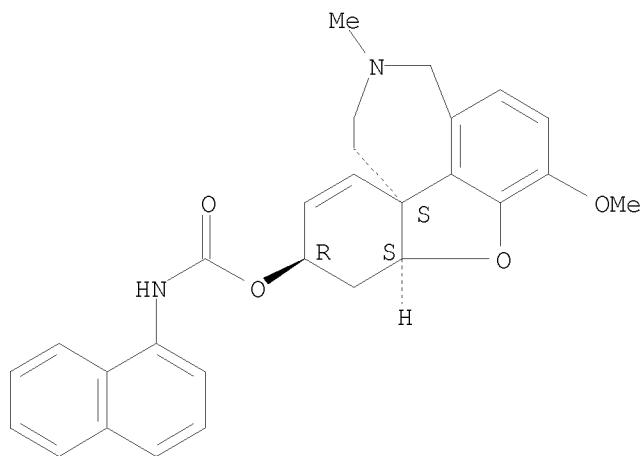
Absolute stereochemistry.



RN 121326-59-8 CAPLUS  
CN Carbamic acid, 1-naphthalenyl-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (9CI)  
(CA INDEX NAME)

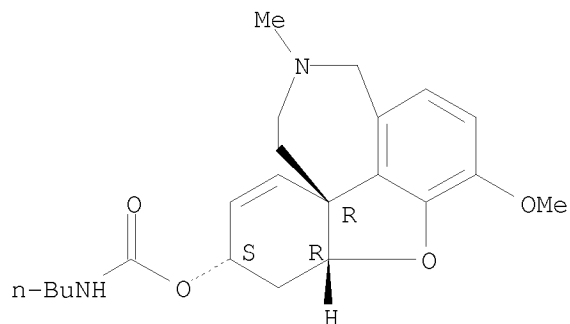
Absolute stereochemistry.

10/573,517



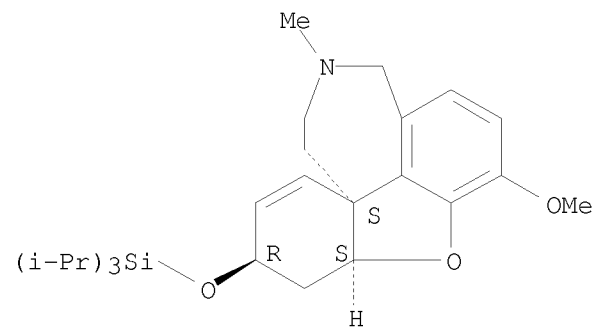
RN 138963-44-7 CAPLUS  
CN Galanthamine, butylcarbamate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 146274-39-7 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6-[[tris(1-methylethyl)silyl]oxy]-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

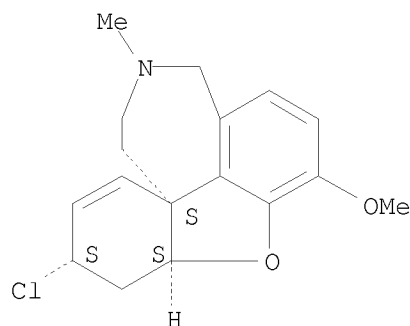


10/573,517

RN 146274-40-0 CAPLUS

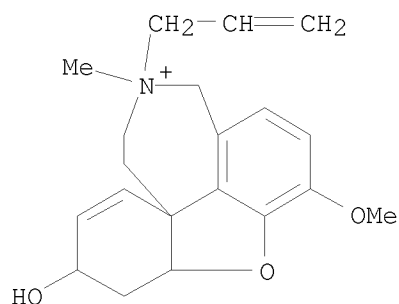
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepine, 6-chloro-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 146475-70-9 CAPLUS

CN Galanthaminium, 10-(2-propen-1-yl)-, bromide (1:1) (CA INDEX NAME)

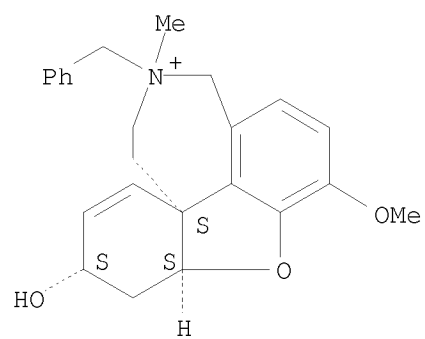


RN 146504-29-2 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepinium, 4a,5,9,10,11,12-hexahydro-6-hydroxy-3-methoxy-11-methyl-11-(phenylmethyl)-, bromide (1:1), (4aS,6S,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517

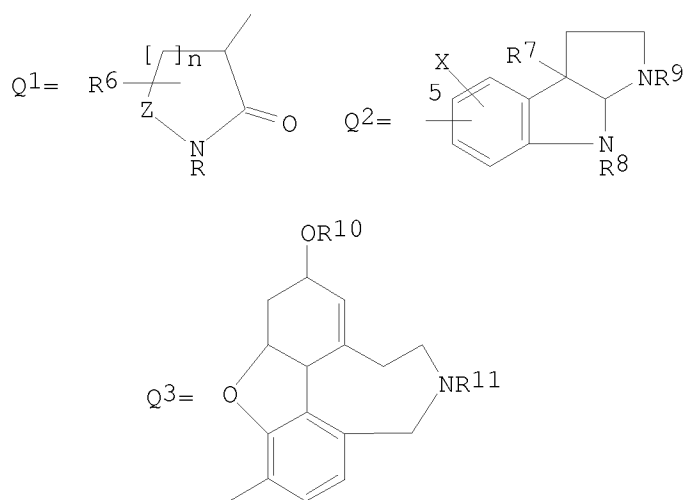




L61 ANSWER 76 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

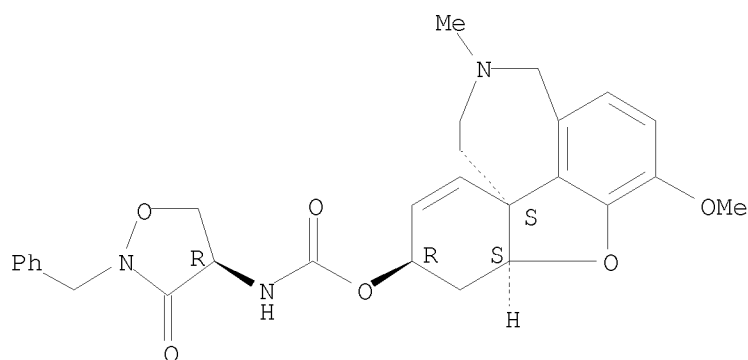
ACCESSION NUMBER: 1993:59945 CAPLUS  
 DOCUMENT NUMBER: 118:59945  
 ORIGINAL REFERENCE NO.: 118:10767a,10770a  
 TITLE: Preparation of physostigmine analogs as cholinesterase inhibitors  
 INVENTOR(S): Flanagan, Denise M.; Martin, Lawrence L.  
 PATENT ASSIGNEE(S): Hoechst-Roussel Pharmaceuticals Inc., USA  
 SOURCE: U.S., 11 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5153193	A	19921006	US 1991-769268	19911001
US 5231093	A	19930727	US 1992-924999	19920805
US 5234941	A	19930810	US 1992-924998	19920805
FI 102178	B	19981030	FI 1992-4370	19920929
FI 102178	B1	19981030		
CA 2079548	A1	19930402	CA 1992-2079548	19920930
CA 2079548	C	20020319		
NO 9203803	A	19930402	NO 1992-3803	19920930
NO 301884	B1	19971222		
EP 535645	A2	19930407	EP 1992-116760	19920930
EP 535645	A3	19930804		
EP 535645	B1	20010509		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
AU 9226065	A	19930408	AU 1992-26065	19920930
AU 649882	B2	19940602		
JP 05194519	A	19930803	JP 1992-261196	19920930
JP 2703157	B2	19980126		
IL 103304	A	19961205	IL 1992-103304	19920930
CZ 281982	B6	19970416	CZ 1992-2990	19920930
RU 2103271	C1	19980127	RU 1992-5052874	19920930
EP 1069125	A2	20010117	EP 2000-121827	19920930
EP 1069125	A3	20011010		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
AT 201024	T	20010515	AT 1992-116760	19920930
ES 2157201	T3	20010816	ES 1992-116760	19920930
PT 535645	T	20010927	PT 1992-116760	19920930
HU 65277	A2	19940502	HU 1992-3129	19921001
HU 215120	B	19980928		
FI 9503443	A	19950714	FI 1995-3443	19950714
FI 9801710	A	19980806	FI 1998-1710	19980806
GR 3036334	T3	20011130	GR 2001-401186	20010807
PRIORITY APPLN. INFO.:			US 1991-769268	A3 19911001
			FI 1992-4370	A 19920929
			EP 1992-116760	A3 19920930
OTHER SOURCE(S):	MARPAT 118:59945			
GI				



- AB R1NHCO2R2 [I; R1 = Z1COR3, isoxazolidinyl group Q1, etc.; R = R4 (Z = O), OR5 (Z = CH2); R2 = physostigmine residue Q2, galanthamine residue Q3, etc.; R3 = OH, (ar)alkoxy, (di)(alkyl)amino; R4 = H, (ar)alkyl; R5, R10 = H, (ar)alkyl, alkanoyl; R6, R8 = H, alkyl; R7 = (ar)alkyl; R9 = H, (ar)alkyl, CHO, alkanoyl, etc.; R11 = H, alkyl, alkanoyl; Z1 = cyclopropylidene; n = 1,2] were prepared. Thus, physostigmine was condensed with 4-amino-2-phenylmethyl-3-isoxazolidinone to give I [R1 = (R)-Q1; R = CH2Ph, R6 = H, n = 1; R2 = (3aS)-cis-Q2; R7-R9 = Me, X = H, site of attachment = 5-position] which gave reversal of scopolamine-induced memory deficit in 27% of mice receiving 0.3 mg/kg s.c.
- IT 145431-44-3P 145431-45-4P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation of, as cholinesterase inhibitor)
- RN 145431-44-3 CAPLUS
- CN Carbamic acid, [3-oxo-2-(phenylmethyl)-4-isoxazolidinyl]-, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, [4aS-[4aα,6β(S\*),8aR\*]]- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.

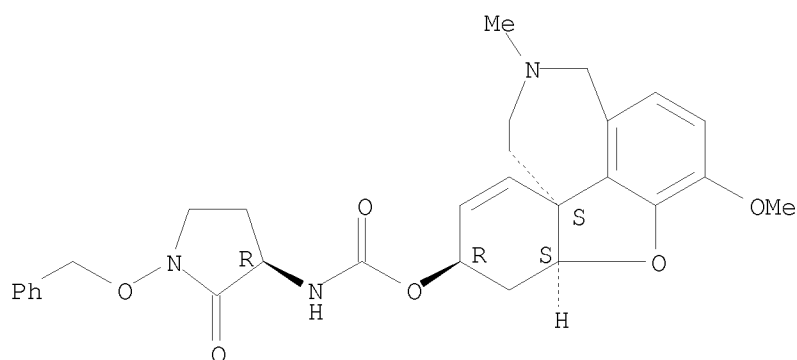


10/573,517

RN 145431-45-4 CAPLUS

CN Carbamic acid, [2-oxo-1-(phenylmethoxy)-3-pyrrolidinyl]-, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, [4aS-[4a $\alpha$ ,6 $\beta$ (S\*),8aR\*]]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



IT 357-70-0, Galanthamine

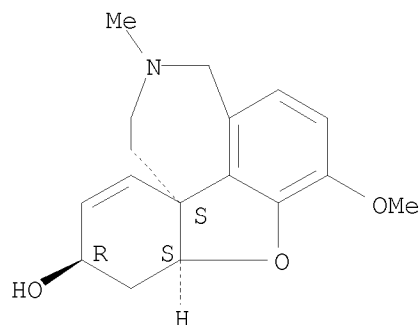
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of cholinesterase inhibitors)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L61 ANSWER 77 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:83569 CAPLUS

DOCUMENT NUMBER: 116:83569

ORIGINAL REFERENCE NO.: 116:14230h,14231a

TITLE: Synthesis and biological activity of galanthamine derivatives as acetylcholinesterase (AChE) inhibitors

AUTHOR(S): Han, So Yeop; Mayer, Scott C.; Schweiger, Edwin J.; Davis, Bonnie M.; Joullie, Madeleine M.

CORPORATE SOURCE: Dep. Chem., Univ. Pennsylvania, Philadelphia, PA, 19104-6323, USA

SOURCE: Bioorganic &amp; Medicinal Chemistry Letters (1991), 1(11), 579-80

CODEN: BMCLE8; ISSN: 0960-894X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The syntheses of several ester and carbamate derivs. of galanthamine are described. These compds. are potential therapeutic agents in the treatment of Alzheimer's disease. The inhibition of cortical acetylcholinesterase (AChE) by these drug candidates with different side chains was investigated. Side chain length as well as branching affected the AChE inhibitory activity. Esters were generally less effective than carbamates.

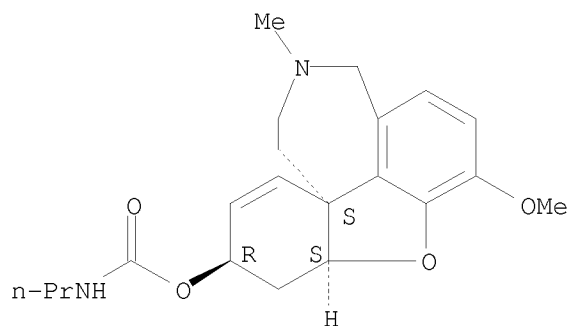
IT 138963-40-3P 138963-41-4P 138963-42-5P  
 138963-43-6P 138963-44-7P 138963-45-8P  
 138963-46-9P 138963-47-0P 138963-48-1P  
 138963-49-2P 138963-50-5P 138963-51-6P  
 138963-52-7P 138963-53-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and inhibition by, of acetylcholine esterase)

RN 138963-40-3 CAPLUS

CN Galanthamine, propylcarbamate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

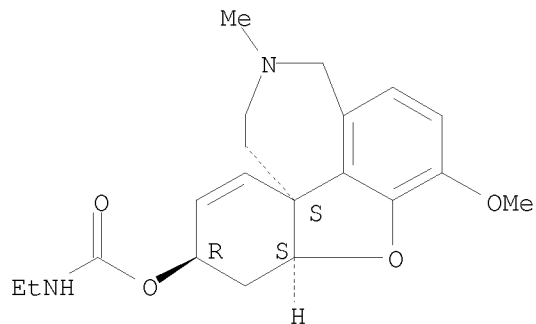


RN 138963-41-4 CAPLUS

CN Galanthamine, ethylcarbamate (ester) (9CI) (CA INDEX NAME)

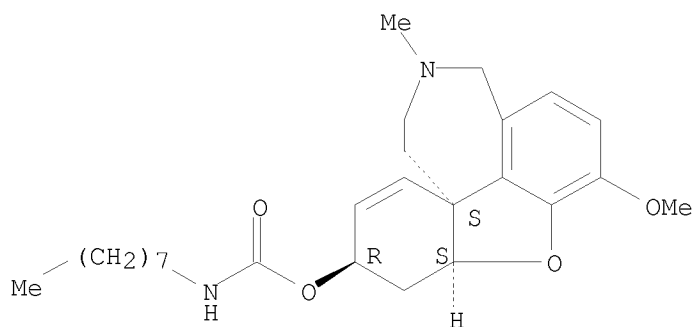
Absolute stereochemistry.

10/573,517



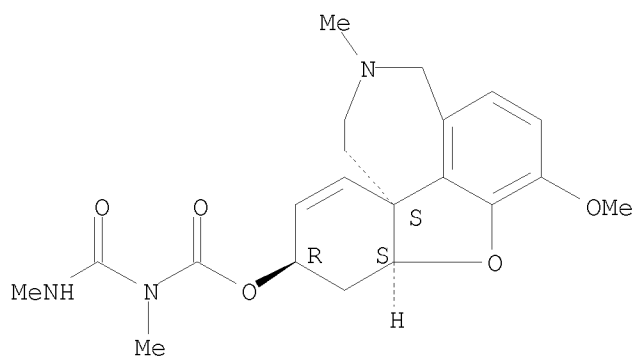
RN 138963-42-5 CAPLUS  
CN Galanthamine, octylcarbamate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 138963-43-6 CAPLUS  
CN Galanthamine, methyl[(methylamino)carbonyl]carbamate (ester) (9CI) (CA INDEX NAME)

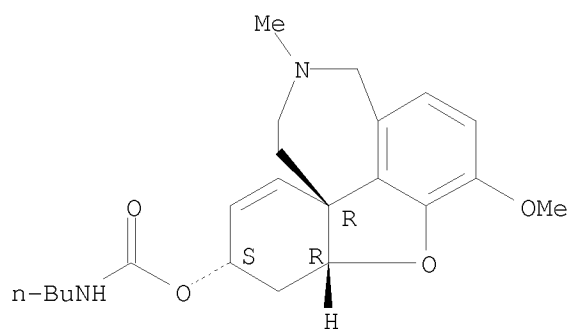
Absolute stereochemistry.



RN 138963-44-7 CAPLUS  
CN Galanthamine, butylcarbamate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

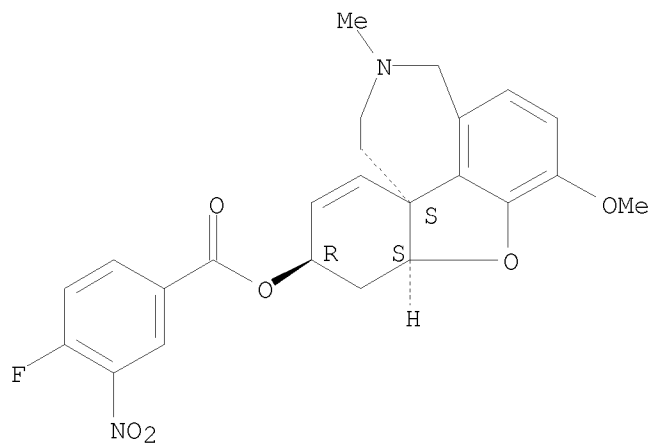
10/573,517



RN 138963-45-8 CAPLUS

CN Benzoic acid, 4-fluoro-3-nitro-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

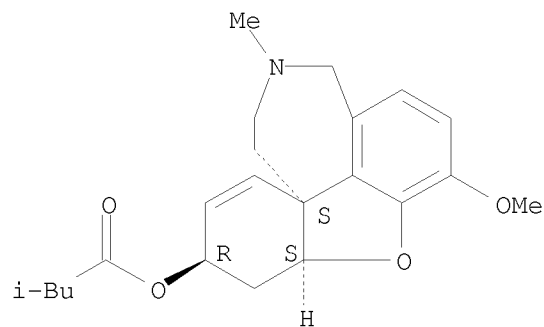
Absolute stereochemistry.



RN 138963-46-9 CAPLUS

CN Butanoic acid, 3-methyl-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.

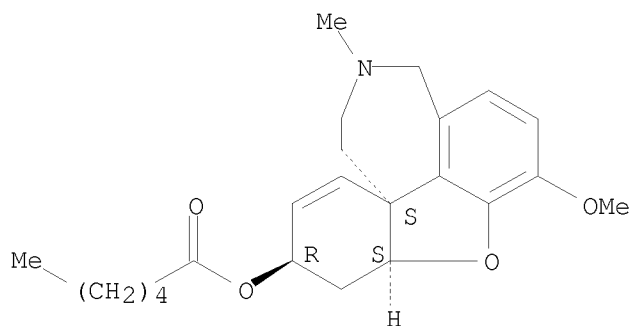


10/573,517

RN 138963-47-0 CAPLUS

CN Hexanoic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

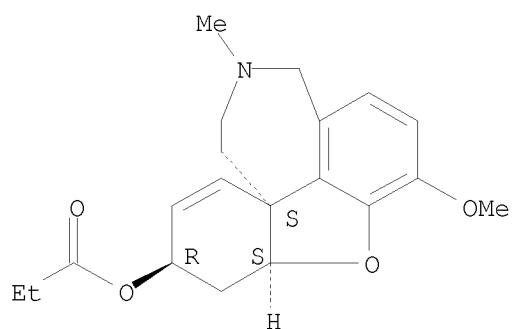
Absolute stereochemistry.



RN 138963-48-1 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, 10-propanoate, (8aS,10R,12aS)- (CA INDEX NAME)

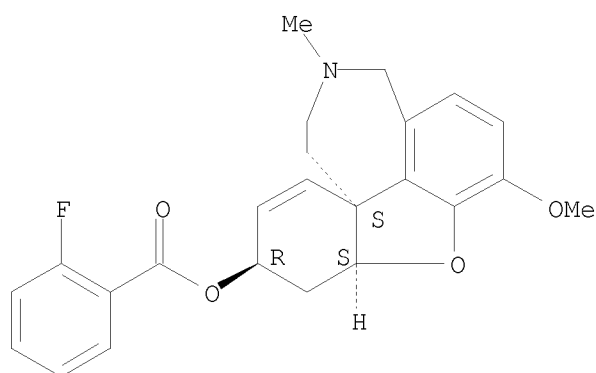
Absolute stereochemistry.



RN 138963-49-2 CAPLUS

CN Galanthamine, 2-fluorobenzoate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

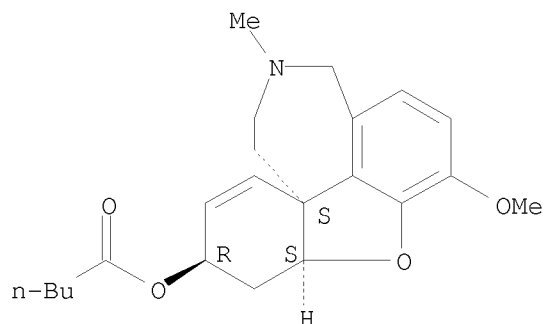


10/573,517

RN 138963-50-5 CAPLUS

CN Pentanoic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

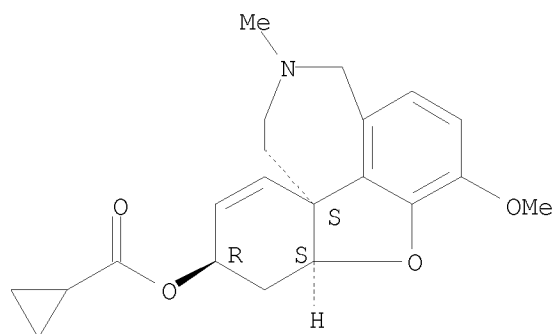
Absolute stereochemistry.



RN 138963-51-6 CAPLUS

CN Cyclopropanecarboxylic acid, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.



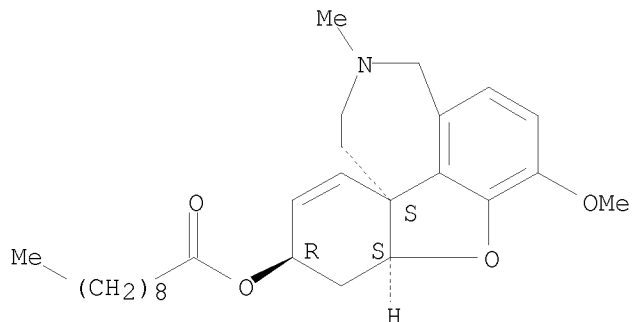
RN 138963-52-7 CAPLUS

CN Galanthamine, decanoate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



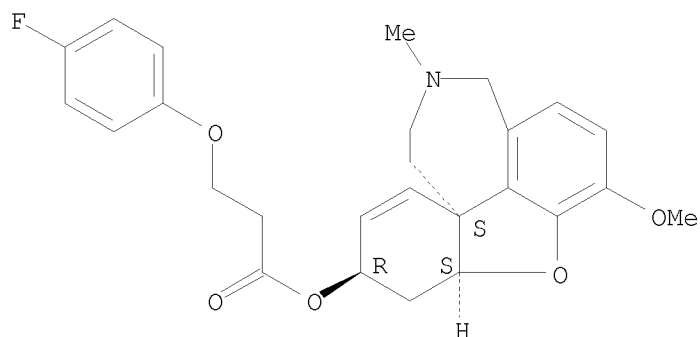
10/573,517



RN 138963-53-8 CAPLUS

CN Propanoic acid, 3-(4-fluorophenoxy)-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (CA INDEX NAME)

Absolute stereochemistry.



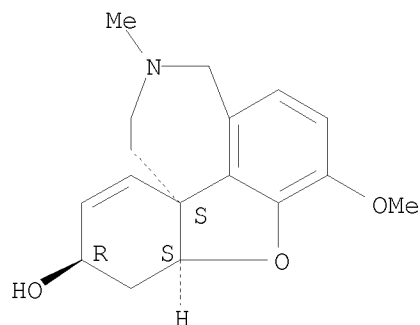
IT 357-70-0, Galanthamine

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reactions of)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L61 ANSWER 78 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:402850 CAPLUS

DOCUMENT NUMBER: 113:2850

ORIGINAL REFERENCE NO.: 113:575a,578a

TITLE: Radioimmunoassay for the quantitative determination of galanthamine

AUTHOR(S): Tanahashi, Takao; Poulev, Alexander; Zenk, Meinhard H.

CORPORATE SOURCE: Univ. Muenchen, Munich, D-8000/2, Germany

SOURCE: Planta Medica (1990), 56(1), 77-81

CODEN: PLMEAA; ISSN: 0032-0943

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A RIA for the quantitation of pmol amts. of the therapeutically important Amaryllidaceae alkaloid, galanthamine, has been developed. The antiserum was raised against a conjugate of galanthamine-2-O-hemisuccinate-bovine serum albumin. The measuring range of the assay extends from 0.5 to 100 ng of galanthamine, and as little as 3.5 pmol may be detected. The antiserum is highly specific for galanthamine, showing practically no cross reactivity with different representatives of the most frequently occurring types of alkaloid structures in Amaryllidaceae. This assay enables a rapid, sensitive, and precise quantitation of galanthamine in unpurified plant exts. The galanthamine concentration in bulbs of several *Leucojum aestivum* plants and the distribution of galanthamine in some Amaryllidaceae genera of South African origin have been investigated. Preliminary expts. indicate that the galanthamine-specific RIA can be a useful tool in medicinal plant breeding as well as in tissue and cell culture studies.

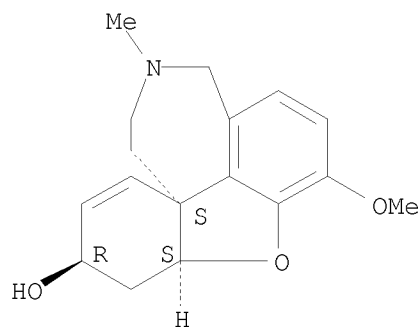
IT 357-70-0, Galanthamine

RL: ANT (Analyte); ANST (Analytical study)  
(determination of, RIA for)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 127414-09-9P

RL: PREP (Preparation)

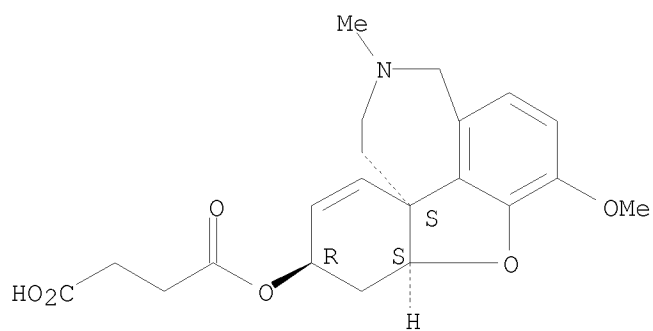
(preparation and coupling with albumin for antibody preparation)

RN 127414-09-9 CAPLUS

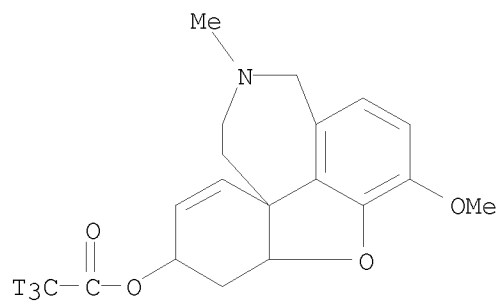
CN Galanthamine, hydrogen butanedioate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

10/573,517



IT 127414-10-2P  
RL: PREP (Preparation)  
(preparation of)  
RN 127414-10-2 CAPLUS  
CN Galanthamine, acetate-t3 (ester) (9CI) (CA INDEX NAME)



IT 1953-04-4, Galanthamine hydrobromide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with succinic anhydride)  
RN 1953-04-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L61 ANSWER 79 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:400417 CAPLUS

DOCUMENT NUMBER: 113:417

ORIGINAL REFERENCE NO.: 113:87a,90a

TITLE: Effect of the Nivalin-Pharmaneocarb combination on the digestive, respiratory, and cardiovascular systems of experimental animals

AUTHOR(S): Dimitrov, T.

CORPORATE SOURCE: Sofia, 1463, Bulg.

SOURCE: Doklady Bolgarskoi Akademii Nauk (1990), 43(1), 125-8  
CODEN: DBANAD; ISSN: 0366-8681

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effects of the Nivalin-Pharmaneocarb combination on the smooth muscles of the digestive system in vitro and on the bronchial muscles in vivo, as well as on the blood pressure and heart rate in exptl. animals were compared to those of Nivalin or Pharmaneocarb sep. The cholinomimetic effect of Nivalin on the spontaneous motor activity of small intestines and its potentiation of the action of acetylcholine remained unchanged in the Nivalin-Pharmaneocarb combination; the undesirable sympathomimetic effect of Pharmaneocarb on the cardiovascular system was eliminated. Blood pressure and heart rate were normalized, which reveals the complex interrelations between the cholinergic and catecholaminergic system in the regulation of blood pressure.

IT 1953-04-4, Nivalin 127435-20-5

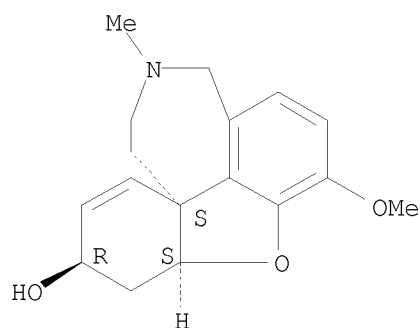
RL: BIOL (Biological study)

(cardiovascular and digestive and respiratory system response to)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HBr

RN 127435-20-5 CAPLUS

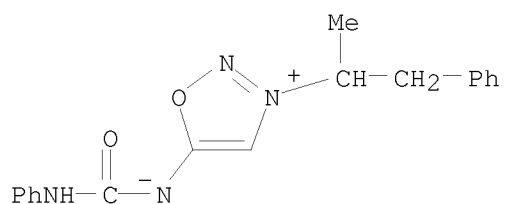
CN 1,2,3-Oxadiazolium, 3-(1-methyl-2-phenylethyl)-5-  
[[ (phenylamino)carbonyl]amino]-, inner salt, mixt. with  
[4aS-(4a $\alpha$ ,6 $\beta$ ,8aR\*)]-4a,5,9,10,11,12-hexahydro-3-methoxy-11-  
methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol hydrobromide (9CI) (CA  
INDEX NAME)

10/573,517

CM 1

CRN 34262-84-5

CMF C18 H18 N4 O2

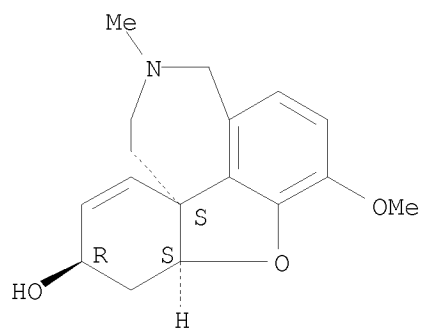


CM 2

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).

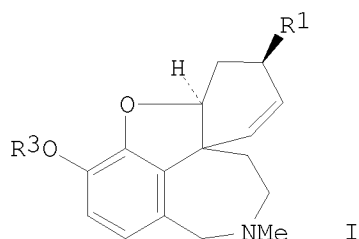


● HBr

L61 ANSWER 80 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:112096 CAPLUS  
 DOCUMENT NUMBER: 112:112096  
 ORIGINAL REFERENCE NO.: 112:18803a,18806a  
 TITLE: Preparation of galanthamine derivatives as  
 cholinesterase inhibitors  
 PATENT ASSIGNEE(S): Stichting Biomedical Research and Advice Group, Neth.  
 SOURCE: Neth. Appl., 33 pp.  
 CODEN: NAXXAN  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Dutch  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 8800350	A	19890901	NL 1988-350	19880212
PRIORITY APPLN. INFO.:			NL 1988-350	19880212
OTHER SOURCE(S):	MARPAT 112:112096			
GI				



AB Galanthamine derivs. I ( $R_1 = H, OH, O_2CR_2$ ;  $R_2 = C_1-5$  alkyl or hydroxyalkyl;  $R_3 = H, Me$ ) and the corresponding N-alkyl, N-alkenyl, and N-benzyl quaternized derivs. are prepared as peripheral cholinesterase inhibitors with little muscarinic activity on the heart and lungs. Thus, galanthamine was refluxed with allyl iodide in MeCN to provide N-allylgallanthamine-HI (II). Galananthamine-HBr in  $CH_2Cl_2$  was treated with  $BBr_3$  under N to produce 6-O-dimethylgalanthamine (sanguinine). II or sanguinine-HI, each at 250  $\mu g/kg$  i.v., caused 91 and 90% reversal, resp., of neuromuscular blockade with pancuronium bromide in rats.

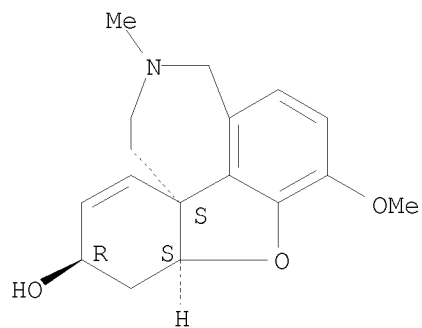
IT 125677-24-9P 125677-25-0P 125677-26-1P  
 125677-27-2P 125677-28-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as cholinergic agonist)

RN 125677-24-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydriodide, [4aS-(4 $\alpha$ ,6 $\beta$ ,8aR\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517

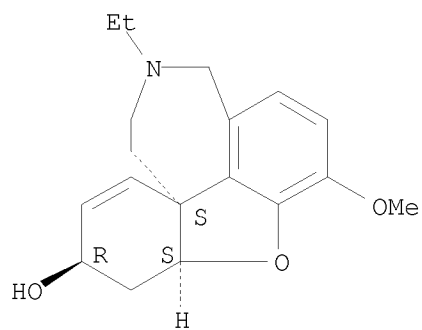


● HI

RN 125677-25-0 CAPLUS

CN Galanthamine, 10-demethyl-10-ethyl-, hydriodide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HI

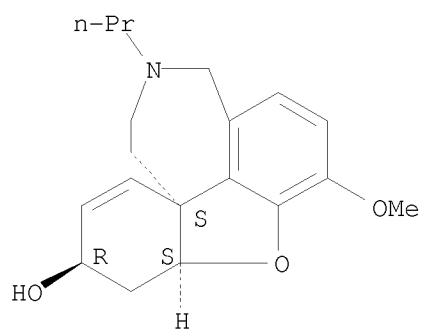
RN 125677-26-1 CAPLUS

CN Galanthamine, 10-demethyl-10-propyl-, hydriodide (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



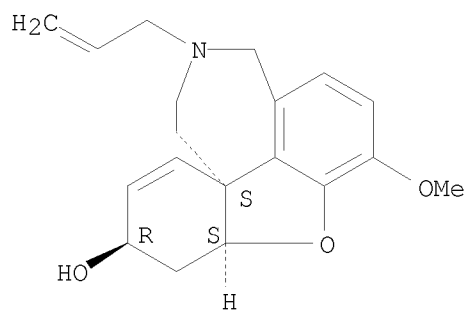
10/573,517



● HI

RN 125677-27-2 CAPLUS  
CN Galanthamine, 10-demethyl-10-(2-propenyl)-, hydriodide (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

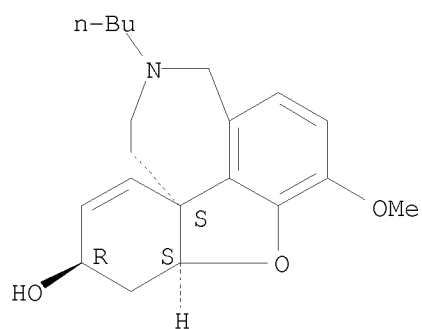


● HI

RN 125677-28-3 CAPLUS  
CN Galanthamine, 10-butyl-10-demethyl-, hydriodide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

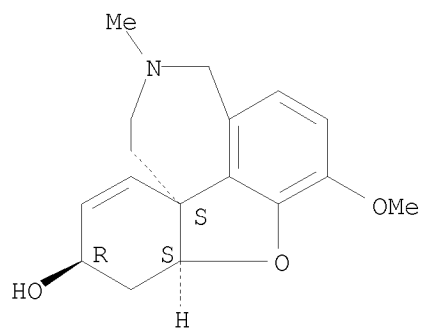
10/573,517



● HI

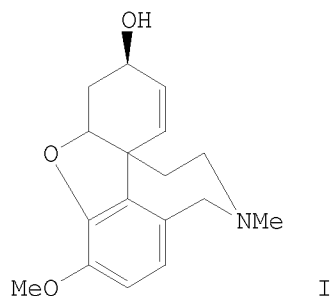
IT 1953-04-4, Galanthamine hydrobromide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with allyl iodide)  
RN 1953-04-4 CAPLUS  
CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HBr

L61 ANSWER 81 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1989:534589 CAPLUS  
 DOCUMENT NUMBER: 111:134589  
 ORIGINAL REFERENCE NO.: 111:22543a,22546a  
 TITLE: Improved synthesis of galanthamine  
 AUTHOR(S): Szewczyk, Jerzy; Lewin, Anita H.; Carroll, F. I.  
 CORPORATE SOURCE: Chem. Life Sci. Unit, Res. Triangle Inst., Research  
 Triangle Park, NC, 27709, USA  
 SOURCE: Journal of Heterocyclic Chemistry (1988), 25(6),  
 1809-11  
 CODEN: JHTCAD; ISSN: 0022-152X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 111:134589  
 GI



AB Modifications in the total synthesis of the Amarylidaceae alkaloid of galanthamine (I) from com. available isovanillin and tyramine have resulted in a shortened reaction sequence, which is amenable to upscaling and in improved product yield.

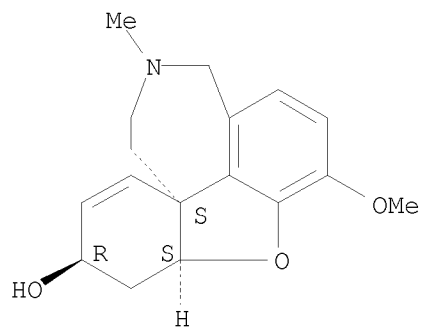
IT 122584-15-0P, (±)-Galanthamine hydrochloride  
 122584-16-1P, (±)-Epigalanthamine hydrochloride  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 122584-15-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride, (4α,6β,8αR\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

10/573,517

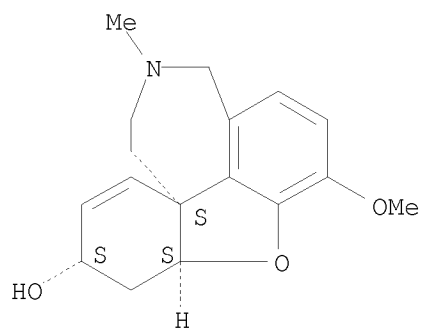


● HCl

RN 122584-16-1 CAPLUS

CN Galanthamine, hydrochloride, (3α)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

L61 ANSWER 82 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:450445 CAPLUS

DOCUMENT NUMBER: 111:50445

ORIGINAL REFERENCE NO.: 111:8423a

TITLE: Method of treatment of spastic forms of infantile cerebral spinal paralysis by muscle biotraining and galanthamine

INVENTOR(S): Bogdanov, O. V.; Shaitor, V. M.; Losev, N. A.

PATENT ASSIGNEE(S): Scientific-Research Institute of Experimental Medicine, Academy of Medical Sciences, U.S.S.R., USSR

SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1988, (43), 33.  
CODEN: URXXAF

DOCUMENT TYPE: Patent

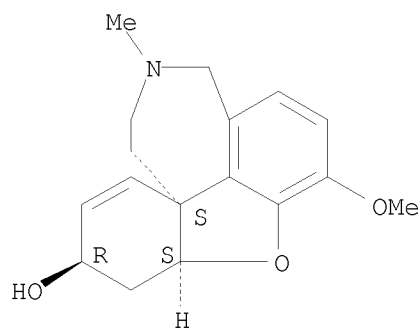
LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1438799	A1	19881123	SU 1987-4245014	19870526
PRIORITY APPLN. INFO.:			SU 1987-4245014	19870526
AB Spastic forms of infantile cerebral paralysis are treated by biotraining of affected muscles combined with administration of galanthamine. The motor functions are improved by normalizing the coordination interrelations of antagonist muscles by first administering galanthamine for 3-4 days before biotraining, and then 1 h before biotraining galanthamine is administered in combination with ganglerson.				
IT 357-70-0, Galanthamine 121699-01-2				
RL: BIOL (Biological study)				
(spastic forms of infantile cerebral paralysis treatment by biotraining and)				
RN 357-70-0 CAPLUS				
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)				

Absolute stereochemistry. Rotation (-).



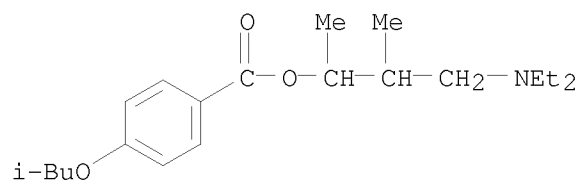
RN 121699-01-2 CAPLUS

CN Benzoic acid, 4-(2-methylpropoxy)-, 3-(diethylamino)-1,2-dimethylpropyl ester, hydrochloride, mixt. with [4aS-(4a $\alpha$ ,6 $\beta$ ,8aR\*)]-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (9CI) (CA INDEX NAME)

CM 1

10/573,517

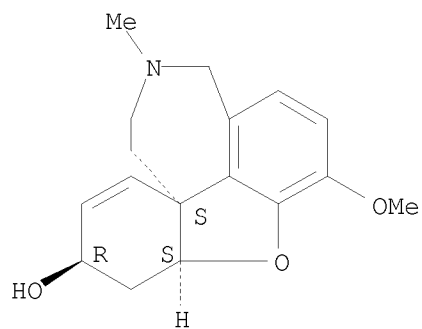
CRN 1510-29-8  
CMF C20 H33 N O3 . Cl H



● HCl

CM 2  
CRN 357-70-0  
CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



L61 ANSWER 83 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:439648 CAPLUS

DOCUMENT NUMBER: 111:39648

ORIGINAL REFERENCE NO.: 111:6757a,6760a

TITLE: Galanthamine analogs for treatment of Alzheimer's disease

INVENTOR(S): Davis, Bonnie; Joullie, Madeleine

PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

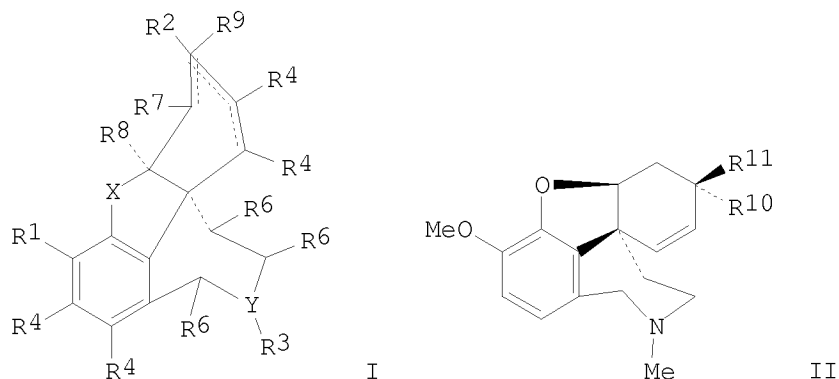
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8808708	A1	19881117	WO 1988-US1542	19880504
W: AU, DK, FI, JP, KR, NO				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8818084	A	19881206	AU 1988-18084	19880504
AU 632458	B2	19930107		
EP 363415	A1	19900418	EP 1988-905083	19880504
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 02503794	T	19901108	JP 1988-504783	19880504
JP 2755403	B2	19980520		
CA 1338326	C	19960514	CA 1988-569641	19880616
CA 1326632	C	19940201	CA 1988-581365	19881026
FI 102756	B	19990215	FI 1989-5213	19891102
FI 102756	B1	19990215		
DK 8905491	A	19900103	DK 1989-5491	19891103
DK 175839	B1	20050321		
US 6150354	A	20001121	US 1993-139338	19931019
US 6268358	B1	20010731	US 1995-473712	19950607
US 6319919	B1	20011120	US 1995-476383	19950607
US 6569848	B1	20030527	US 2000-723700	20001128
US 20040023984	A1	20040205	US 2003-397682	20030326
PRIORITY APPLN. INFO.:			US 1987-46522	A 19870504
			EP 1987-100461	A 19870115
			EP 1988-905083	A 19880504
			WO 1988-US1542	A 19880504
			US 1988-219914	A1 19880715
			US 1990-541076	A1 19900621
			US 1991-695949	A2 19910506
			US 1991-781028	A1 19911018
			US 1993-139338	A1 19931019
			US 1995-473712	A1 19950607
			US 2000-723700	A1 20001128
OTHER SOURCE(S):	MARPAT 111:39648			
GI				



AB Galanthamine analogs [I; R1, R2 = H, OH, NN2, alkylamino, cyano, etc., R1 may also be alky, HOCH2, R2 may also be CH2CO2H provided that one of R1 and R2 is OH, amino, or alkylamino unless R7 or R8 is HOCH2; R3 = H, alkyl, cycloalkylmethyl, Ph, etc.; R4 = H, OH, alkyl, aryl, etc.; R6 = H, halo, F3C, alkyl; R7 = R4 or hydroxyalkyl; R8 = H, HOCH2; R9 = H, alkyl, etc.; X = O, NR4; Y = N, P] as well as their pharmaceutically acceptable salts are used for treatment of Alzheimer's disease. Galanthamine (II; R10 = H, R11 = OH) in CH2CL2 was oxidized with pyridinium chlorochromate to give 86% II (R10R11 = O).

IT 357-70-0P, Galanthamine 121326-58-7P

121326-59-8P

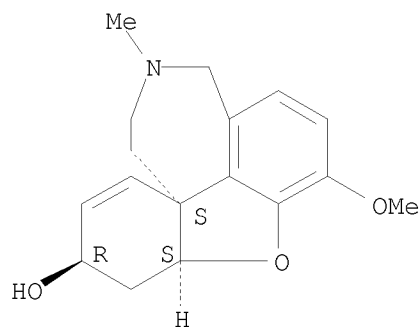
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, for treatment of Alzheimer's disease)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



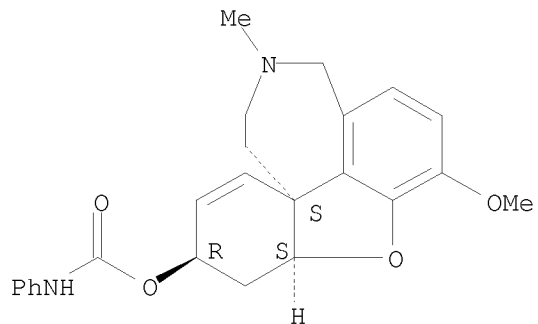
RN 121326-58-7 CAPLUS

CN Galanthamine, phenylcarbamate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



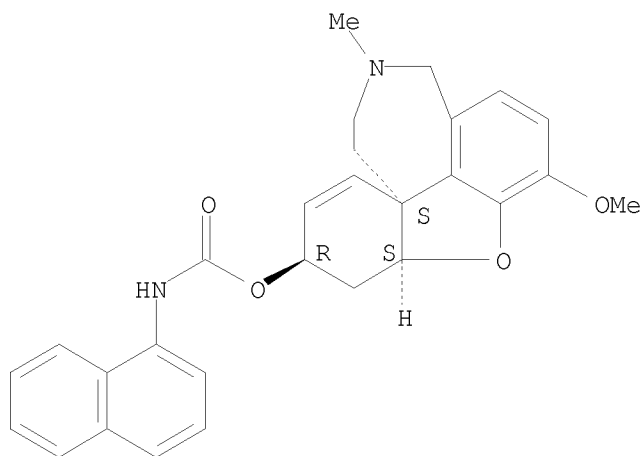
10/573,517



RN 121326-59-8 CAPLUS

CN Carbamic acid, 1-naphthalenyl-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



L61 ANSWER 84 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:106276 CAPLUS

DOCUMENT NUMBER: 108:106276

ORIGINAL REFERENCE NO.: 108:17259a,17262a

TITLE: Effects of anticurare agents produced in Bulgaria on the smooth muscles of the gastro-intestinal tract

AUTHOR(S): Mitsov, V.; Vlaskovska, M.

CORPORATE SOURCE: Res. Inst. Pharmacol., Med. Acad., Sofia, Bulg.

SOURCE: Acta Physiologica et Pharmacologica Bulgarica (1987), 13(3), 56-65

CODEN: APPBDI; ISSN: 0323-9950

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Nivaline increased the tone of guinea pig stomach, ileum, and tenia coli and rabbit jejunum smooth muscles, while pymadin increased the amplitude of the contractions in vitro. The combined agent nivaline P (nivaline 5 + 10<sup>-7</sup> g/mL plus pymadin 5 + 10<sup>-7</sup> g/nL) stimulated both phasic and tonic activity. The role of Ca<sup>2+</sup> in the actions of nivalin-P is discussed.

IT 1953-04-4, Nivaline 53321-09-8, Nivaline P

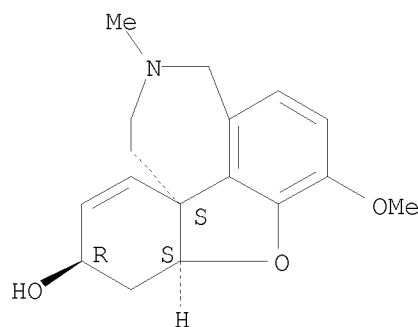
RL: BIOL (Biological study)

(smooth muscle of digestive tract response to)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HBr

RN 53321-09-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

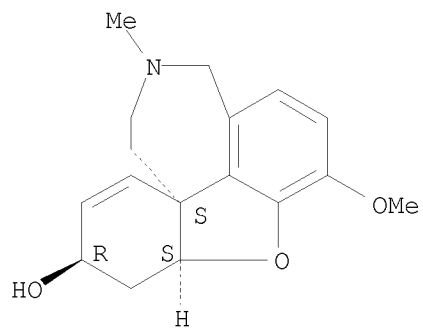
CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).

10/573,517

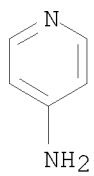


● HBr

CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H



● HCl

L61 ANSWER 85 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:52751 CAPLUS

DOCUMENT NUMBER: 108:52751

ORIGINAL REFERENCE NO.: 108:8751a

TITLE: Studies on the alkaloids of Amaryllidaceae. Part X.  
Alkaloids of Lycoris quangxiensis

AUTHOR(S): Li, Hui-Yin; Ma, Guangen; Xu, Yin; Hong, Shanhai

CORPORATE SOURCE: Shanghai Inst. Mater. Med., Chin. Acad. Sci.,  
Shanghai, Peop. Rep. China

SOURCE: Planta Medica (1987), 53(3), 259-61

CODEN: PLMEAA; ISSN: 0032-0943

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new alkaloid, N-allylnorgalanthamine (I) was isolated from the bulbs of *L. quangxiensis* (Amaryllidaceae). Addnl., seven known alkaloids, lycorine, narwedine, galanthamine, lycoramine, crinine, norgalanthamine, and pseudolycorine, were also obtained. The structure of I was established through the interpretation of spectral data.

IT 357-70-0, Galanthamine 41303-74-6 112448-56-3

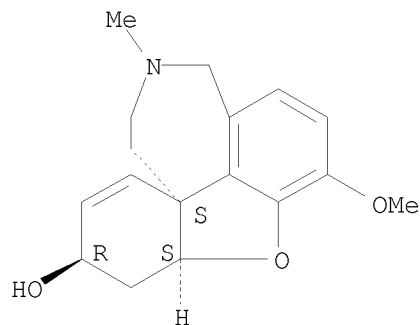
RL: BIOL (Biological study)

(from *Lycoris quangxiensis* bulbs, isolation and identification of)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

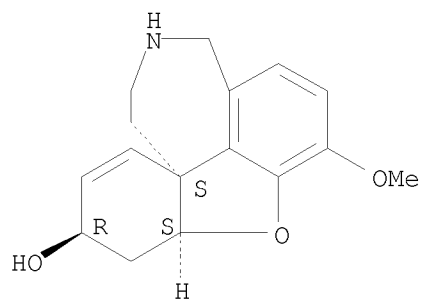


RN 41303-74-6 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-, (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

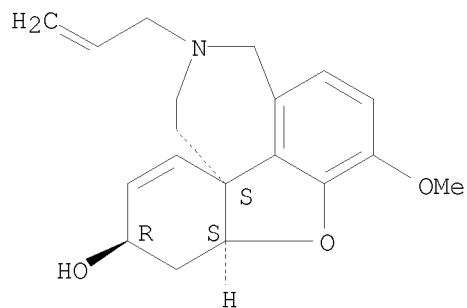
10/573,517



RN 112448-56-3 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-(2-propen-1-yl)-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L61 ANSWER 86 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:131589 CAPLUS

DOCUMENT NUMBER: 106:131589

ORIGINAL REFERENCE NO.: 106:21315a,21318a

TITLE: Electroencephalographic studies of some neurostimulators

AUTHOR(S): Mitsov, V.; Iosifov, T.

CORPORATE SOURCE: Med. Akad., Sofia, Bulg.

SOURCE: Farmatsiya (Sofia, Bulgaria) (1986), 36(5), 30-5  
CODEN: FMTYA2; ISSN: 0428-0296

DOCUMENT TYPE: Journal

LANGUAGE: Bulgarian

AB EEG studies on central nervous system stimulants (pentetrazole [54-95-5], bemegride [64-65-3], prethcamide [8015-51-8], pimadin [13495-09-5], and nivaline P [53321-09-8]) in cats showed that while pimadin acts on the nucleus dorsalis raphe, other stimulants act on the mesencephalic reticular formation.

IT 53321-09-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(EEG response to)

RN 53321-09-8 CAPLUS

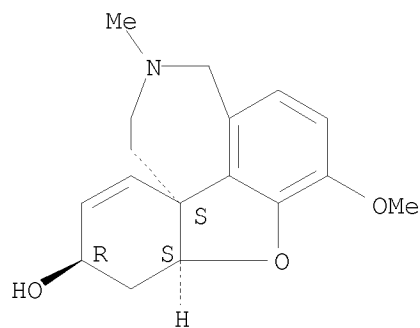
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).



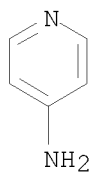
● HBr

CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H

10/573,517



● HCl

L61 ANSWER 87 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:618771 CAPLUS

DOCUMENT NUMBER: 105:218771

ORIGINAL REFERENCE NO.: 105:35139a,35142a

TITLE: Relative tToxicity of the combination drug Nivaline-P

AUTHOR(S): Mitsov, V.; Georgiev, A.

CORPORATE SOURCE: MA, Sofia, Bulg.

SOURCE: Eksperimentalna Meditsina i Morfologiya (1986), 25(3), 28-32

CODEN: EKMMMA8; ISSN: 0367-0643

DOCUMENT TYPE: Journal

LANGUAGE: Bulgarian

AB The acute toxicity of nivaline-P (I) [53321-09-8] was determined in various animal species after i.p., i.v., and s.c. administration. S.c. administration of I to rats at 1/16 and 1/4 s.c. LD50 (1 and 4 mg/kg, resp.) induced no pathol. changes in internal organs. No teratogenic effects were observed, and the favorable therapeutic index (i.v. therapeutic dose = 0.5 mg/kg; i.v. LD50 = 9.3 mg/kg) of I indicates the drug may find wide application in clin. practice.

IT 53321-09-8

RL: BIOL (Biological study)

(acute and chronic toxicity of)

RN 53321-09-8 CAPLUS

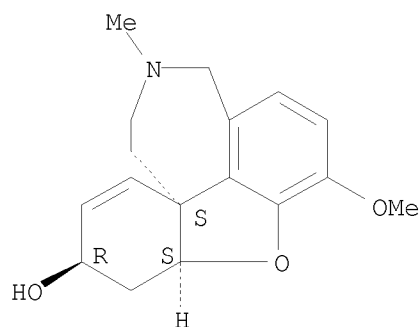
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).



● HBr

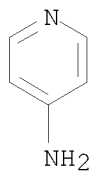
CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H



10/573,517



● HCl

L61 ANSWER 88 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:603059 CAPLUS

DOCUMENT NUMBER: 105:203059

ORIGINAL REFERENCE NO.: 105:32589a,32592a

TITLE: Interaction of neurostimulants with noninhalation anesthetics

AUTHOR(S): Mitsov, V.

CORPORATE SOURCE: MA, Sofia, Bulg.

SOURCE: Eksperimentalna Meditsina i Morfologiya (1986), 25(2), 27-31

CODEN: EKMM8; ISSN: 0367-0643

DOCUMENT TYPE: Journal

LANGUAGE: Bulgarian

AB In cats, i.v. administration of nivaline P [53321-09-8] (0.5 mg/kg), prethcamide [8015-51-8] (2 mg/kg), and bemegride [64-65-3] (10 mg/kg) antagonized the depressant effects of the anesthetic hydroxinone [105157-13-9] on blood pressure and respiration. 4-Aminopyridine (4-AP; pimadin) [504-24-5] (0.5-2 mg/kg) had no such effect. Given i.p. to rats, 1-5-mg 4-AP/kg did not affect hexobarbital [56-29-1] sleep duration. Possible 4-AP action mechanisms are discussed.

IT 53321-09-8

RL: BIOL (Biological study)  
(noninhalation anesthetics antagonism by)

RN 53321-09-8 CAPLUS

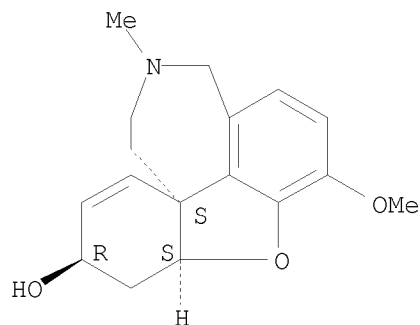
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).



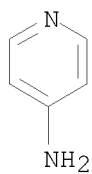
● HBr

CM 2

CRN 1003-40-3

10/573,517

CMF C5 H6 N2 . Cl H



● HCl

L61 ANSWER 89 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:603058 CAPLUS

DOCUMENT NUMBER: 105:203058

ORIGINAL REFERENCE NO.: 105:32589a,32592a

TITLE: Interaction between some myorelaxants and Bulgarian anticurare drugs

AUTHOR(S): Mitsov, V.; Vlaskovska, M.

CORPORATE SOURCE: MA, Sofia, Bulg.

SOURCE: Eksperimentalna Meditsina i Morfologiya (1986), 25(2), 16-21

CODEN: EKMM8; ISSN: 0367-0643

DOCUMENT TYPE: Journal

LANGUAGE: Bulgarian

AB The anticurare effects of neostigmine [59-99-4], pimadin [504-24-5], galanthamine [357-70-0], and nivaline P [53321-09-8] against diadonium [26660-43-5], pancuronium [15500-66-0], and gallamine [153-76-4] were studied in anesthetized cats. Regardless of the paralyzing drug or antagonist employed, spontaneous muscle activity returned first to the intercostalis muscle, then to the abdominalis muscle, and last to the gastrocnemius. Galamine was the most potent paralyzing agent, and neostigmine the most effective antagonist.

IT 357-70-0 53321-09-8

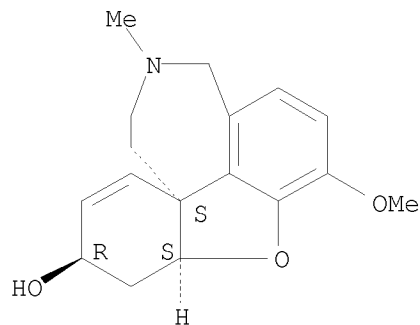
RL: BIOL (Biological study)

(myorelaxant-antagonizing activity of, muscle type differences in)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 53321-09-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

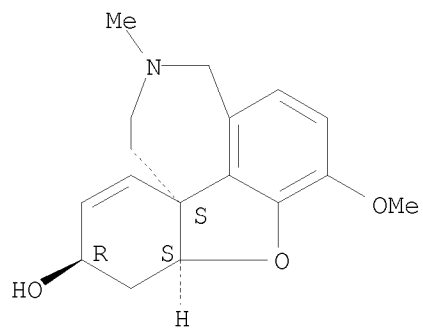
CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).

10/573,517

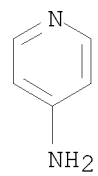


● HBr

CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H



● HCl

L61 ANSWER 90 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:183268 CAPLUS

DOCUMENT NUMBER: 104:183268

ORIGINAL REFERENCE NO.: 104:28969a,28972a

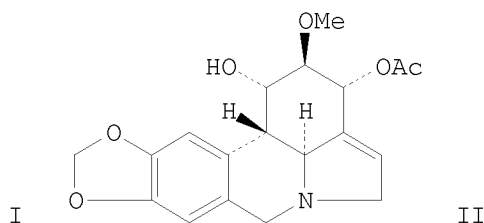
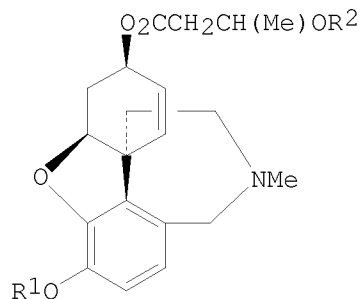
TITLE: Alkaloidal constituents of *Leucojum aestivum* L.  
(Amaryllidaceae)AUTHOR(S): Kobayashi, Shigeru; Kihara, Masaru; Yuasa, Kazuyoshi;  
Imakura, Yasuhiro; Shingu, Tetsuro; Kato, Akira;  
Hashimoto, ToshihiroCORPORATE SOURCE: Fac. Pharm. Sci., Tokushima Univ., Tokushima, 770,  
JapanSOURCE: Chemical & Pharmaceutical Bulletin (1985), 33(12),  
5258-63

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Two novel alkaloids, leucotamine (I, R<sub>1</sub>=R<sub>2</sub>=H) and O-methylleucotamine (II) (I, R<sub>1</sub>=Me, R<sub>2</sub>=H), with a 3R-hydroxybutyryl group, and another new alkaloid, 3-O-acetylungiminoresine (III), were isolated from leaves of *Leucojum aestivum* (Amaryllidaceae) together with 5 known alkaloids. II and III, as well as 4 known bases, were also isolated from bulbs of this plant. The stereochem. of the new compds. was established from chemical and spectral data.

IT 357-70-0

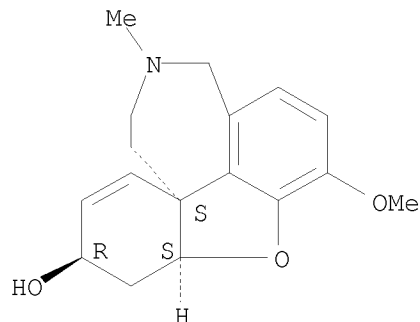
RL: BIOL (Biological study)  
(from *Leucojum aestivum*)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

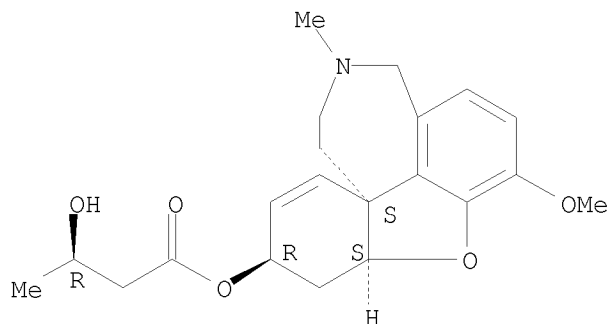
Absolute stereochemistry. Rotation (-).

10/573,517

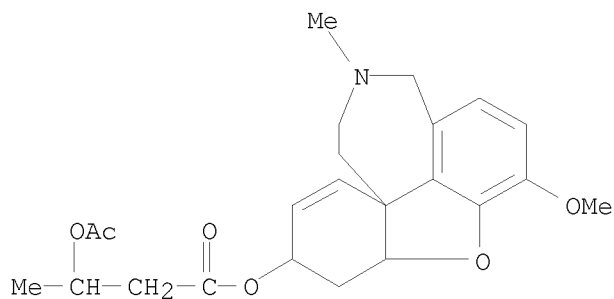


IT 82644-83-5  
RL: BIOL (Biological study)  
(from *Leucojum aestivum*, structure of)  
RN 82644-83-5 CAPLUS  
CN Butanoic acid, 3-hydroxy-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



IT 82644-84-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 82644-84-6 CAPLUS  
CN Galanthamine, 3-(acetyloxy)butanoate (ester), [3(R)]- (9CI) (CA INDEX NAME)



L61 ANSWER 91 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:591659 CAPLUS

DOCUMENT NUMBER: 99:191659

ORIGINAL REFERENCE NO.: 99:29447a,29450a

TITLE: Antifeedants for the larvae of the yellow butterfly, *Eurema hecabe mandarina*, in *Lycoris radiata*

AUTHOR(S): Numata, Atsushi; Takemura, Tsuruko; Ohbayashi, Hideyuki; Katsuno, Takako; Yamamoto, Kyoko; Sato, Kimihisa; Kobayashi, Shigeru

CORPORATE SOURCE: Osaka Coll. Pharm., Matsubara, 580, Japan

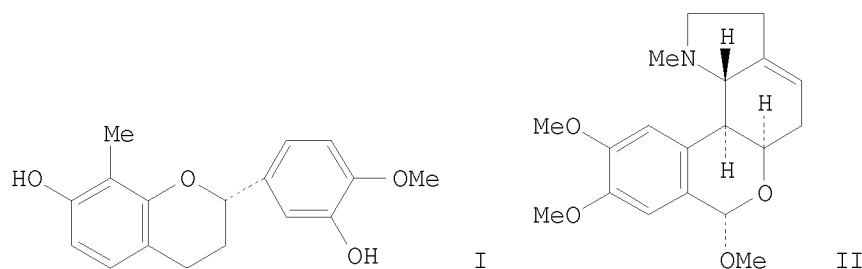
SOURCE: Chemical &amp; Pharmaceutical Bulletin (1983), 31(6), 2146-9

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB In addition to the 8 known compds., 2 new constituents were isolated as antifeedants for the larvae of the yellow butterfly, *E. hecabe mandarina*, from the MeOH extract of *L. radiata*. Their structures were established to be (-)-3'-hydroxy-4'-methoxy-7-hydroxy-8-methylflavan (I) and O-methyllycorenine (II) on the basis of spectral evidence. Final evidence for the structure of I came from the synthesis of the racemate. Two of the known compds., galanthamine and lycoramine, were isolated as carbonate. In addition to I and demethylhomolycorine, lycoricidinol and lycoricidine, reported as plant growth inhibitors, were main antifeedants in *L. radiata*.

IT 357-70-0 87757-32-2

RL: BIOL (Biological study)  
(from *Lycoris radiata*)

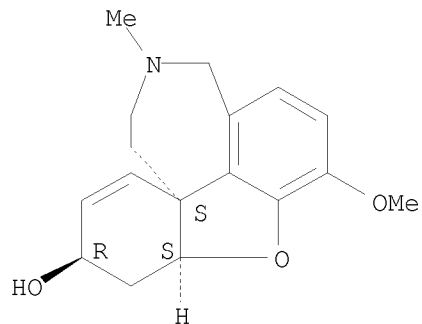
RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



10/573,517



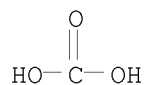
RN 87757-32-2 CAPLUS

CN Carbonic acid, compd. with (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:2) (9CI)  
(CA INDEX NAME)

CM 1

CRN 463-79-6

CMF C H2 O3

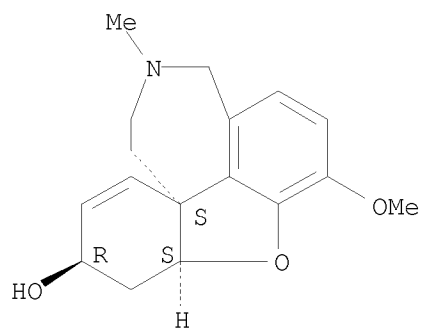


CM 2

CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



L61 ANSWER 92 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:506546 CAPLUS

DOCUMENT NUMBER: 97:106546

ORIGINAL REFERENCE NO.: 97:17659a,17662a

TITLE: Identification and quantitative determination of m-hydroxyphenylglycol in mammalian urine

AUTHOR(S): Crowley, Jan R.; Couch, Margaret W.; Williams, Clyde M.; James, Michael I.; Ibrahim, Kamal E.; Midgley, John M.

CORPORATE SOURCE: Dep. Radiol., Univ. Florida Coll. Med., Gainesville, FL, 32610, USA

SOURCE: Biomedical Mass Spectrometry (1982), 9(4), 146-52  
CODEN: BMSYAL; ISSN: 0306-042X

DOCUMENT TYPE: Journal

LANGUAGE: English

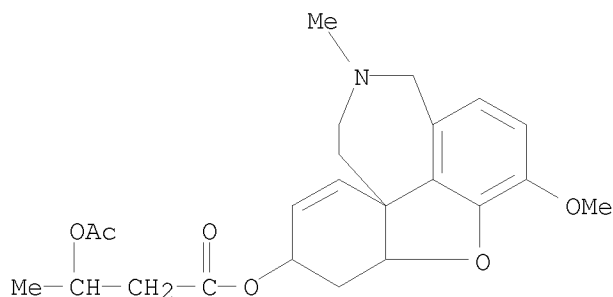
AB m-Hydroxyphenylglycol was determined in mammalian urine by selected ion monitoring using a pentadeuterated internal standard. The glycol was converted to its tris-pentafluoropropionyl derivative and identified by gas chromatog. retention times and the ions  $m/z$  592, 428, and 415. The glycol was excreted as the sulfate conjugate (2-18 ng/mg creatinine in humans and 0.5-1.1  $\mu\text{g/day}$  in rats). Urinary m-hydroxymandelic acid was also determined; the acid:glycol ratio was 1:1 in rat and 6:1 in human. Thus, the overall reductive path of m-octopamine and m-syneprine metabolism is more important in the rat than in the human.

IT 82660-84-2P

RL: PREP (Preparation)  
(preparation of)

RN 82660-84-2 CAPLUS

CN Butanoic acid, 3-(acetyloxy)-, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester,  
[4aS-[4a $\alpha$ ,6 $\beta$ (R\*),8aR\*]]- (9CI) (CA INDEX NAME)



L61 ANSWER 93 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:469283 CAPLUS

DOCUMENT NUMBER: 97:69283

ORIGINAL REFERENCE NO.: 97:11543a,11546a

TITLE: New alkaloids, leucotamine and O-methylleucotamine,  
from *Leucojum aestivum* LAUTHOR(S): Kobayashi, Shigeru; Yuasa, Kazuyoshi; Sato, Kimihito;  
Imakura, Yasuhiro; Shingu, TetsuroCORPORATE SOURCE: Fac. Pharm. Sci., Tokushima Univ., Tokushima, 770,  
Japan

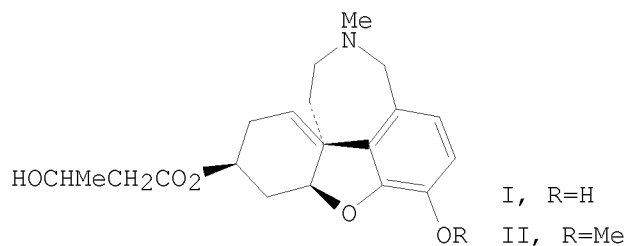
SOURCE: Heterocycles (1982), 19(7), 1219-22

CODEN: HTCYAM; ISSN: 0385-5414

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



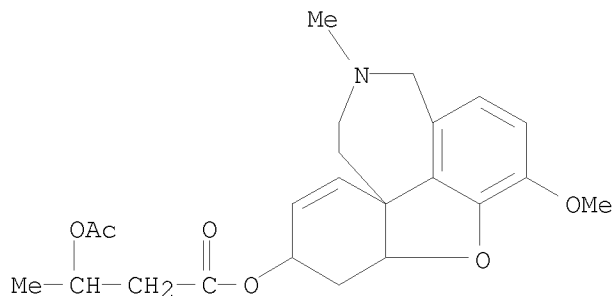
AB The structures of leucotamine (I) and o-methylleucotamine (II) isolated from the leaves of *Leucojum aestivum* were determined from spectral and chemical evidence.

IT 82644-84-6P 82644-85-7P 82660-84-2P

RL: BOC (Biological occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation) (from *Leucojum aestivum*, isolation and structure of)

RN 82644-84-6 CAPLUS

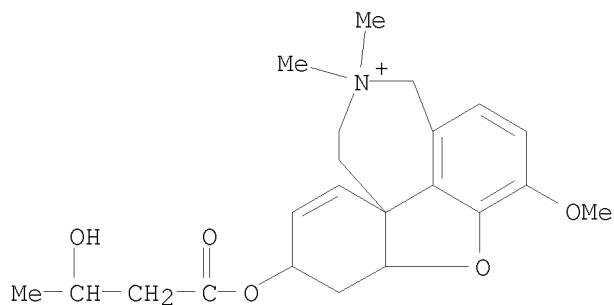
CN Galanthamine, 3-(acetyloxy)butanoate (ester), [3(R)]- (9CI) (CA INDEX NAME)



RN 82644-85-7 CAPLUS

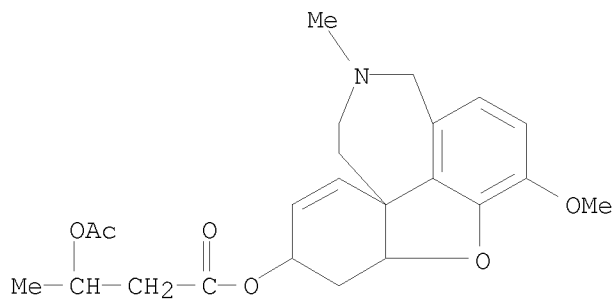
CN Galanthaminium, 10-methyl-, iodide, 3-hydroxybutanoate (ester), [3(R)]- (9CI) (CA INDEX NAME)

10/573,517



RN 82660-84-2 CAPLUS

CN Butanoic acid, 3-(acetyloxy)-, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, [4aS-[4a $\alpha$ ,6 $\beta$ (R\*),8aR\*]]- (9CI) (CA INDEX NAME)



IT 82644-83-5P

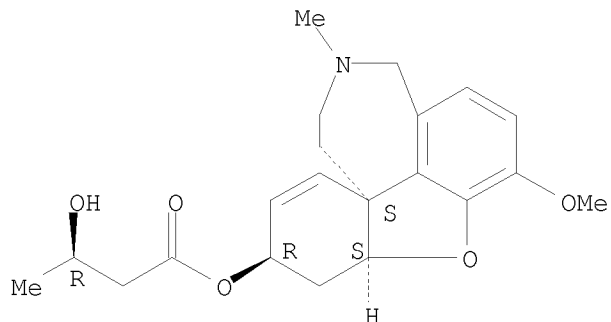
RL: BOC (Biological occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation) (from *Leucojum aestivum*, isolation and structure of)

RN 82644-83-5 CAPLUS

CN Butanoic acid, 3-hydroxy-, (4aS,6R,8aS)-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-yl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517



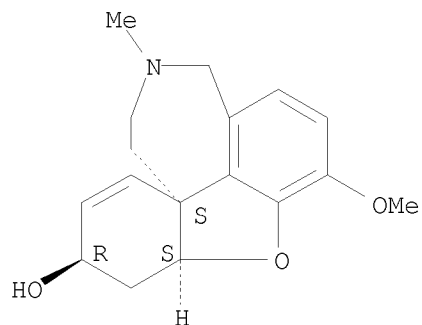
IT 357-70-0

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with acetoxybutyryl chlorides)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L61 ANSWER 94 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:223354 CAPLUS

DOCUMENT NUMBER: 96:223354

ORIGINAL REFERENCE NO.: 96:36853a,36856a

TITLE: Chromatographic behavior of halide salts of alkaloids on alumina

AUTHOR(S): Dobronravova, E. K.; Sattarova, A. Kh.; Shakirov, T. T.

CORPORATE SOURCE: Inst. Khim. Rastit. Veshchestv, Tashkent, USSR

SOURCE: Khimiya Prirodnikh Soedinenii (1982), (1), 127

CODEN: KPSUAR; ISSN: 0023-1150

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Alkaloid halide salts presumably react with alumina as evidenced by 2 spots after Dragendorff's staining, 1 major spot and the other near the start. The longer the drying of the chromatogram with the sample, the more clear was the spot at the start. The reaction between alkaloidal salt (hydrochlorides and hydrobromides) can be studied quant. After chromatog., the halide content may be determined mercurimetrically. The sensitivity of detecting Cl<sup>-</sup> and Br<sup>-</sup> by Dragendorff's stain is 500 µg. This characteristic behavior was noted with desoxyepiganine-HCl [61939-05-7], lycorine-HCl [2188-68-3], and galanthamine-HCl [5072-47-9]. Thus, >500 µg alkaloid halides during chromatog. on alumina show decomposition and formation of an addnl. spot at the starting point.

IT 357-70-0

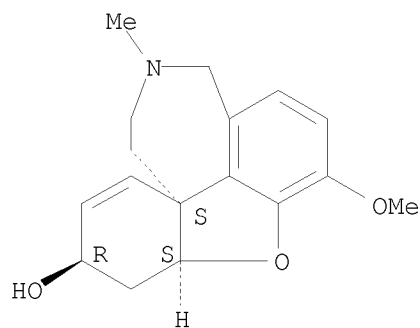
RL: ANT (Analyte); ANST (Analytical study)

(determination of, hydrochloride reaction during chromatog. in relation to)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 5072-47-9

RL: RCT (Reactant); RACT (Reactant or reagent)

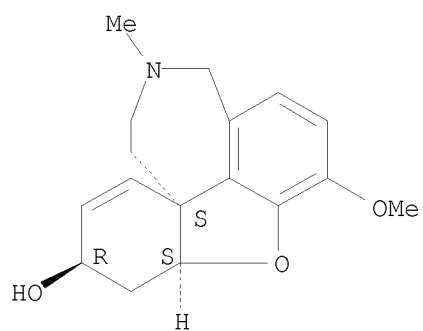
(reaction of, with alumina during chromatog.)

RN 5072-47-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



● HCl

L61 ANSWER 95 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:400437 CAPLUS

DOCUMENT NUMBER: 95:437

ORIGINAL REFERENCE NO.: 95:91a,94a

TITLE: Electromyographic analysis of the interaction of some muscle relaxants with new Bulgarian curare antagonists

AUTHOR(S): Mitsov, V.; Vlasovska, M.

CORPORATE SOURCE: Med. Akad., Sofia, Bulg.

SOURCE: Farmatsiya (Sofia, Bulgaria) (1980), 30(6), 37-40

CODEN: FMTYA2; ISSN: 0428-0296

DOCUMENT TYPE: Journal

LANGUAGE: Bulgarian

AB An i.v. injection of nivaline P (nivaline-pimadin 1:1 mixture) [53321-09-8]/kg, 30 s after an i.v. injection of 0.3 mg diadonium [26660-43-5], 2 mg flaxedil [65-29-2], or 20 mg pavulon [15500-66-0]/kg, restored evoked potentials in cat neuromuscular synapses more rapidly than did pimadin or nivaline alone.

IT 53321-09-8

RL: BIOL (Biological study)  
(neuromuscular transmission response to)

RN 53321-09-8 CAPLUS

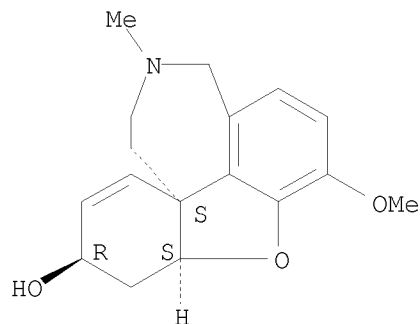
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).



● HBr

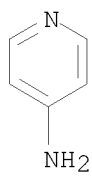
CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H



10/573,517



● HCl

L61 ANSWER 96 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:90198 CAPLUS

DOCUMENT NUMBER: 94:90198

ORIGINAL REFERENCE NO.: 94:14609a,14612a

TITLE: Quaternary ammonium salts with a labile nitrogen  
(N<sup>+</sup>)-carbon bond as drug precursors

AUTHOR(S): Vinogradova, N. D.; Kuznetsov, S. G.; Chigareva, S. M.

CORPORATE SOURCE: Inst. Toksikol. Minist. Zdravookhr., Leningrad, USSR

SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1980), 14(9), 41-7  
CODEN: KHFZAN; ISSN: 0023-1134

DOCUMENT TYPE: Journal

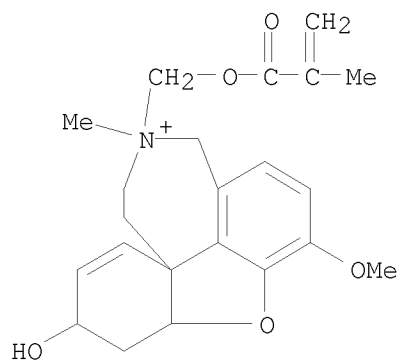
LANGUAGE: Russian

AB Quaternary ammonium salts with a labile quaternary N-C bond are prepared by reacting compds. of the type XCH<sub>2</sub>OY (where X = halogen; Y = Me, Ac, Bz, etc.) with tertiary amines. The amines selected had different types of pharmacol. activities, e.g. cholinolytic. Alkylation with simple halo compds. was done in less polar aprotic solvents at 5-20° for 1 h, whereas for less reactive compds. the alkylation was done at 250-60° in polar aprotic solvents with the reaction time varying from several hours to days. Increasing the temperature above 60° causes thermal decomposition of the  $\alpha$ -haloesters which reduces the yield sharply. These quaternary compds. presumably undergo hydrolytic decomposition through liberating the desired pharmaceutical.

IT 76656-20-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as prodrug)

RN 76656-20-7 CAPLUS

CN Galanthaminium, 10-[[ (2-methyl-1-oxo-2-propenyl)oxy]methyl]-, chloride  
(9CI) (CA INDEX NAME)● Cl<sup>-</sup>

L61 ANSWER 97 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:523958 CAPLUS

DOCUMENT NUMBER: 93:123958

ORIGINAL REFERENCE NO.: 93:19621a,19624a

TITLE: Structure of norgаланthamine hydrochloride

AUTHOR(S): Roques, R.; Rossi, J. C.; Declercq, J. P.; Germain, G.

CORPORATE SOURCE: Lab. Cristallogr., Univ. Natl. Cote d'Ivoire, Abidjan, Cote d'Ivoire

SOURCE: Acta Crystallographica, Section B: Structural Crystallography and Crystal Chemistry (1980), B36(7), 1589-93

CODEN: ACBCAR; ISSN: 0567-7408

DOCUMENT TYPE: Journal

LANGUAGE: French

AB Norgаланthamine hydrochloride (Amaryllidaceae alkaloid) is triclinic, space group P1, with  $a$  9.939(1),  $b$  10.820(2),  $c$  9.597(4) Å,  $\alpha$  90.55(3),  $\beta$  72.19(3), and  $\gamma$  61.43(1)°. The structure was solved by direct methods with the random approach ( $R = 5.2\%$  for 3172 independent observed reflections). The stereochem. and conformation in norgаланthamine hydrochloride are the same as for norgаланthamine.

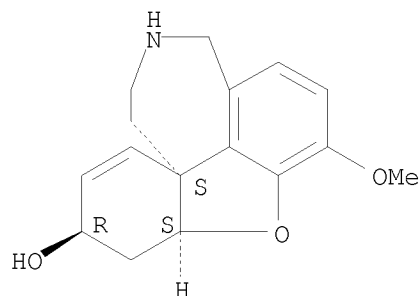
IT 74855-23-5

RL: PRP (Properties)  
(crystal structure of)

RN 74855-23-5 CAPLUS

CN Galanthamine, 10-demethyl-, hydrochloride, dihydrate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

● 2 H<sub>2</sub>O

L61 ANSWER 98 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:449295 CAPLUS

DOCUMENT NUMBER: 91:49295

ORIGINAL REFERENCE NO.: 91:7873a,7876a

TITLE: Antitrichomonas activity of different groups of substances isolated from the flora of Central Asia

AUTHOR(S): Abdullaev, Kh.

CORPORATE SOURCE: USSR

SOURCE: Farmakol. Prir. Veschestv (1978), 103-7. Editor(s): Sadritdinov, B. S. Izd. "Fan" Uzb. SSR: Tashkent, USSR.

CODEN: 40FPAO

DOCUMENT TYPE: Conference

LANGUAGE: Russian

AB Several substances plant origin (29 alkaloids from Ungernia and Physochloina alaica, 25 coumarins, 20 lactones, 41 phenolic compds., and 11 saponins) were tested for their ability to inhibit Trichomonas in vitro. The most active compds. were the saponins, especially leontoside [60371-09-7].

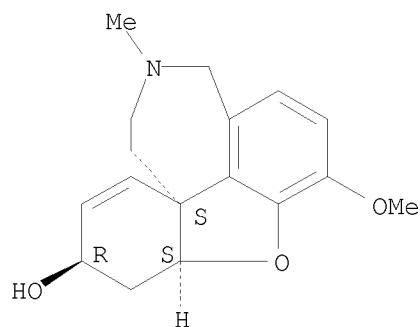
IT 5072-47-9

RL: BIOL (Biological study)  
(Trichomonas inhibition by)

RN 5072-47-9 CAPLUS

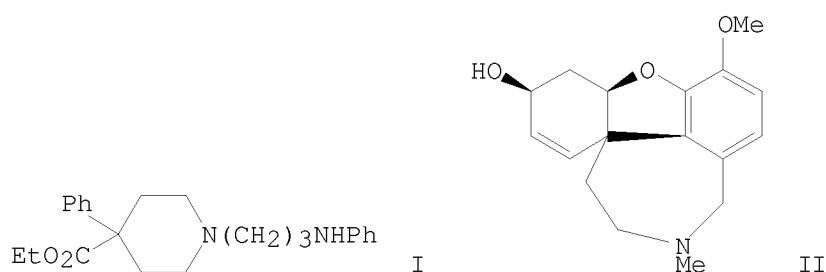
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

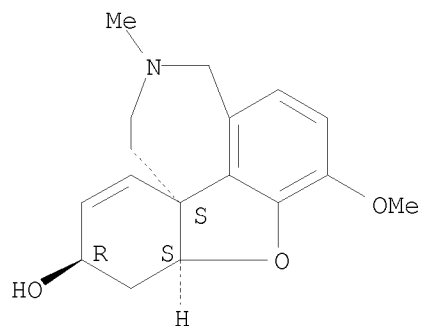
L61 ANSWER 99 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1979:16242 CAPLUS  
DOCUMENT NUMBER: 90:16242  
ORIGINAL REFERENCE NO.: 90:2579a,2582a  
TITLE: Effect of Bulgarian anticurare drugs on the spinal  
cord reflex  
AUTHOR(S): Mitsov, V.; Rudakov, A.  
CORPORATE SOURCE: Med. Akad., Sofia, Bulg.  
SOURCE: Farmatsiya (Sofia, Bulgaria) (1978), 28(2), 42-6  
CODEN: FMTYA2; ISSN: 0428-0296  
DOCUMENT TYPE: Journal  
LANGUAGE: Bulgarian  
GI



AB	I.v. injection of 0.75-1 mg pimadin (I) [13495-09-5] or 0.5-1 mg nivaline (II) [1953-04-4]/kg increased the amplitude of mono- and polysynaptic potentials in decerebrated cats by 50-60%, whereas 0.25 mg nivaline-P (I-II) [53321-09-8]/kg (I:II = 1:1) increased the amplitude by 25-50%.
IT	1953-04-4 53321-09-8 RL: BIOL (Biological study) (spinal cord reflexes response to)
RN	1953-04-4 CAPLUS
CN	10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



● HBr

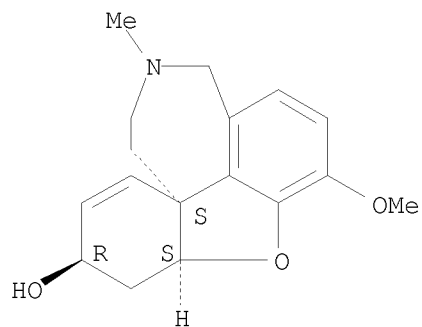
RN 53321-09-8 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).



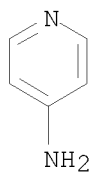
● HBr

CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H

10/573,517



● HCl

L61 ANSWER 100 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1978:171996 CAPLUS  
 DOCUMENT NUMBER: 88:171996  
 ORIGINAL REFERENCE NO.: 88:27099a,27102a  
 TITLE: Water-thinned anticorrosion primers  
 INVENTOR(S): Matsudaira, Tadashi; Nurihara, Tetsuo; Nonoshita, Shigeru  
 PATENT ASSIGNEE(S): Kansai Paint Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52130444	A	19771101	JP 1976-48315	19760427
PRIORITY APPLN. INFO.:			JP 1976-48315	A 19760427

AB Water-thinned anticorrosion primers contained phosphate ion 2-300, SiO<sub>2</sub> >2, organosilicon compound 0.05-10, and optionally borate, molybdate, vanadate, and/or tungstate <100 g/L. For example, a water-thinned composition containing 89% H<sub>3</sub>PO<sub>4</sub> 5, Zn(H<sub>2</sub>PO<sub>4</sub>)<sub>2</sub> 20, Aerosil 380 125, and 3-(2-aminoethylamino)propyltrimethoxysilane [1760-24-3] 5 g/L was thinned with 10-fold water, coated to 150 mg(solids)/m<sup>2</sup> on galvanized steel, heated, in a 200° oven for 5 s, topped with an alkyd, and baked in a 280° oven for 70 s to give a coating with good adhesion on the substrate while no adhesion was observed when primer containing 1 g/L Aerosil was used.

IT 1359-83-7  
 RL: USES (Uses)  
 (anticorrosion primers containing, for steel and aluminum)

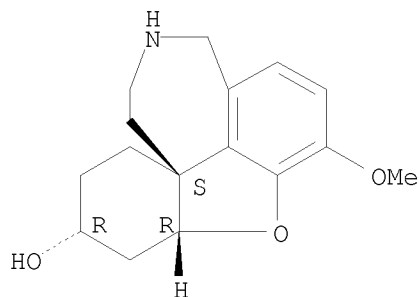
RN 1359-83-7 CAPLUS

CN Galanthamine, 10-demethyl-, compd. with (3 $\alpha$ , 4 $\alpha$  $\beta$ , 4 $\beta$ ) -10-demethyl-1,2-dihydrogalanthamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 57651-31-7  
 CMF C16 H21 N O3

Absolute stereochemistry. Rotation (+).





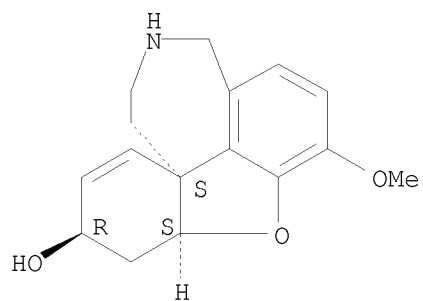
10/573,517

CM 2

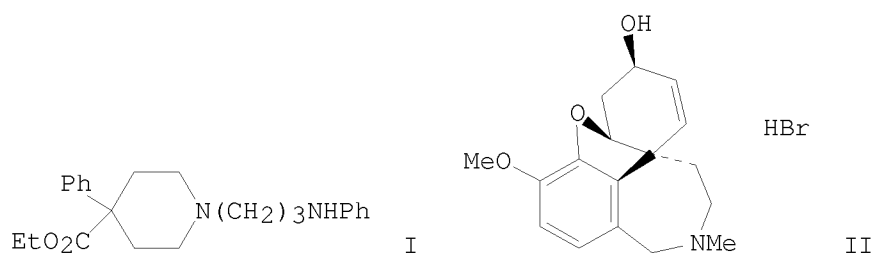
CRN 41303-74-6

CMF C16 H19 N O3

Absolute stereochemistry. Rotation (-).



L61 ANSWER 101 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:99016 CAPLUS  
DOCUMENT NUMBER: 88:99016  
ORIGINAL REFERENCE NO.: 88:15429a,15432a  
TITLE: Effect of pimadin, nivaline and their combination on  
the semisynaptic tongue-maxillary reflex  
AUTHOR(S): Rudakov, A.; Mitsov, V.  
CORPORATE SOURCE: I Mosk. Med. Inst., Moscow, USSR  
SOURCE: Farmatsiya (Sofia, Bulgaria) (1977), 27(2), 34-7  
CODEN: FMTYA2; ISSN: 0428-0296  
DOCUMENT TYPE: Journal  
LANGUAGE: Bulgarian  
GI



AB Injections of 0.1-0.5 mg pimadin (I) [13495-09-5] and 0.5-1 mg nivaline (II) [1953-04-4]/kg enhanced synaptic transmission of the tongue-maxillary reflex in cats. Nivaline-P (I-II mixt.) [53321-09-8] caused potentiation of the individual effects of I and II.

IT 53321-09-8  
RL: BIOL (Biological study)  
(nerve synaptic transmission response to)

RN 53321-09-8 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

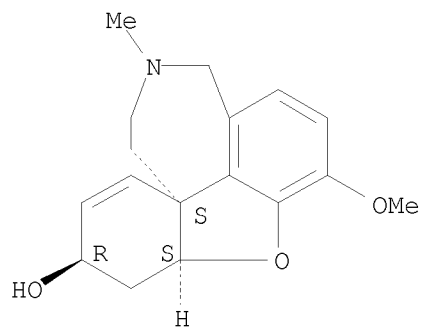
CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).

10/573,517

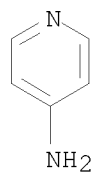


● HBr

CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H



● HCl

IT 1953-04-4

RL: BIOL (Biological study)

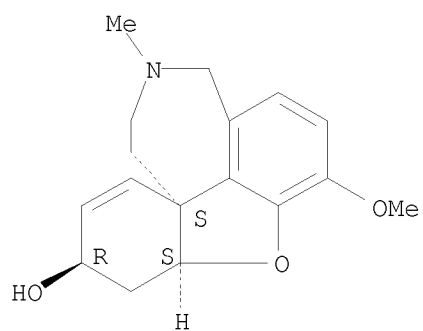
(nerve synaptic transmission response to, pimadin in relation to)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

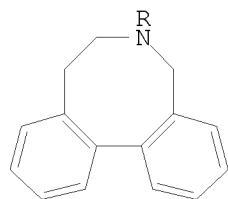
Absolute stereochemistry. Rotation (-).

10/573,517

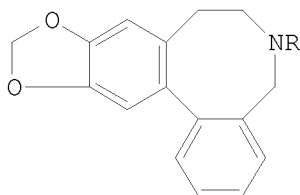


● HBr

L61 ANSWER 102 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1978:98929 CAPLUS  
 DOCUMENT NUMBER: 88:98929  
 ORIGINAL REFERENCE NO.: 88:15409a,15412a  
 TITLE: Studies on the  $\alpha$ -adrenolytic activities of  
 apogalanthamine analogs  
 AUTHOR(S): Ishida, Yukio; Watanabe, Kouzo; Kobayashi, Shigeru;  
 Kihara, Masaru  
 CORPORATE SOURCE: Fac. Pharm. Sci., Tokushima Univ., Tokushima, Japan  
 SOURCE: Chemical & Pharmaceutical Bulletin (1977), 25(8),  
 1851-5  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



I  
 III, R=Me

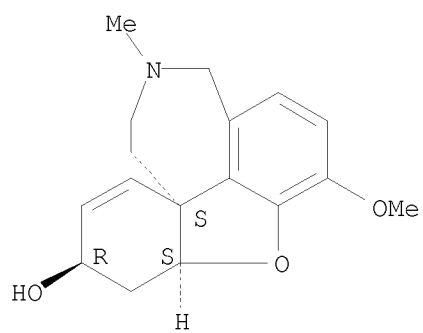


II

AB Apogalanthamine analogs were synthesized, and their  $\alpha$ -adrenolytic and 5-hydroxytryptamine creatinine sulfate [61-47-2]-antagonizing activities and those of related compds. on rat aortic strips were compared with those of well known antagonists. N-alkylated 5, 6, 7,8-tetrahydrodibenz[c,e]-azocines (I) and N-alkylated 10,11-methylenedioxy-5,6,7,8-tetrahydrodibenz[c,e]- azocines (II) had reversible  $\alpha$ -adrenolytic activities; their activities were as great as those of phentolamine and benzyloimidazoline. Of the compds. tested, 6-methyl-5,6,7,8-tetrahydrodibenz[c,e]azocine styphnate (III) [64906-04-3] had the strongest  $\alpha$ -adrenolytic activity ( $pA_2 = 8.76$ ); its activity was greater than that of phentolamine.  
 IT 5072-47-9  
 RL: BIOL (Biological study)  
 ( $\alpha$ -adrenolytic and hydroxytryptamine antagonizing activity of)  
 RN 5072-47-9 CAPLUS  
 CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

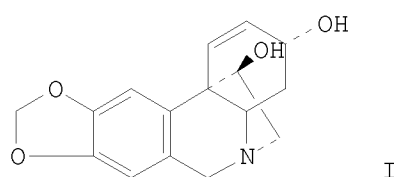
10/573,517



● HCl

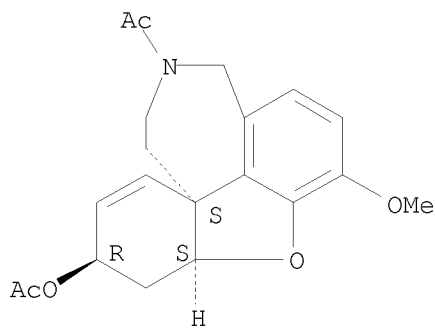
10/573,517

L61 ANSWER 103 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1977:86104 CAPLUS  
DOCUMENT NUMBER: 86:86104  
ORIGINAL REFERENCE NO.: 86:13593a,13596a  
TITLE: The structure of hamayne, a new alkaloid from *Crinum asiaticum* L. var. *japonicum* Baker  
AUTHOR(S): Ochi, Masamitsu; Otsuki, Hitoshi; Nagao, Kosho  
CORPORATE SOURCE: Fac. Arts Sci., Kochi Univ., Kochi, Japan  
SOURCE: Bulletin of the Chemical Society of Japan (1976),  
49(11), 3363-4  
CODEN: BCSJA8; ISSN: 0009-2673  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB The structure of hamayne (I) isolated from the fruit of *C. asiaticum* var *japonicum* was established to be O-demethylcrinamine on the basis of spectral and chemical evidence.  
IT 61948-10-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 61948-10-5 CAPLUS  
CN Galanthamine, 10-acetyl-10-demethyl-, acetate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L61 ANSWER 104 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:508849 CAPLUS

DOCUMENT NUMBER: 85:108849

ORIGINAL REFERENCE NO.: 85:17481a,17484a

TITLE: The optical resolution of (±)-galanthamine

AUTHOR(S): Kametani, Tetsuji; Premila, Manakkal S.; Fukumoto, Keiichiro

CORPORATE SOURCE: Pharm. Inst., Tohoku Univ., Sendai, Japan

SOURCE: Heterocycles (1976), 4(6), 1111-14

CODEN: HTCYAM; ISSN: 0385-5414

DOCUMENT TYPE: Journal

LANGUAGE: English

AB (+)-Galanthamine was obtained by resolution of (±)-galanthamine with di-p-toluoyl(+)-tartaric acid. (-)-Galanthamine was similarly obtained with di-p-toluoyl(-)-tartaric acid.

IT 60354-86-1P 60409-14-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and hydrolysis of)

RN 60354-86-1 CAPLUS

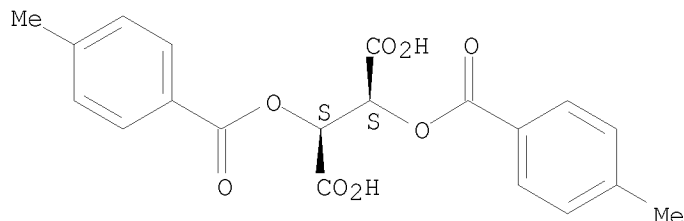
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, [S-(R\*,R\*)]-, compd. with [4aS-(4α,6β,8αR\*)]-4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 32634-68-7

CMF C20 H18 O8

Absolute stereochemistry. Rotation (+).



CM 2

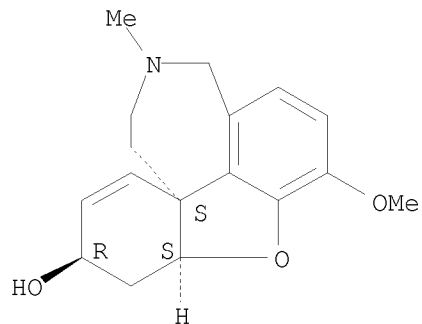
CRN 357-70-0

CMF C17 H21 N O3

Absolute stereochemistry. Rotation (-).



10/573,517

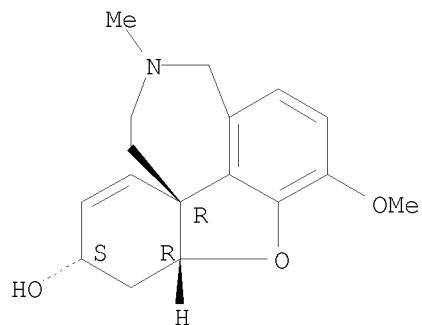


RN 60409-14-5 CAPLUS  
CN Butanedioic acid, 2,3-bis[(4-methylbenzoyl)oxy]-, [R-(R\*,R\*)]-, compd.  
with [4aR-(4a $\alpha$ ,6 $\beta$ ,8aR\*)]-4a,5,9,10,11,12-hexahydro-3-methoxy-11-  
methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol (1:2) (9CI) (CA INDEX  
NAME)

CM 1

CRN 60384-53-4  
CMF C17 H21 N O3

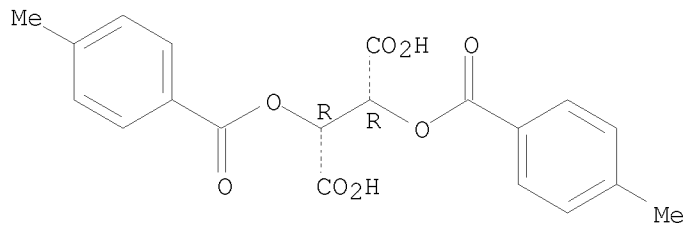
Absolute stereochemistry. Rotation (+).



CM 2

CRN 32634-66-5  
CMF C20 H18 O8

Absolute stereochemistry. Rotation (-).



10/573,517

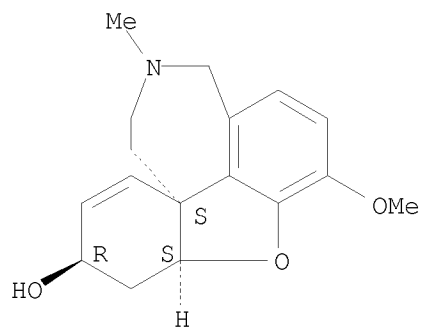
IT 357-70-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L61 ANSWER 105 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:25804 CAPLUS

DOCUMENT NUMBER: 82:25804

ORIGINAL REFERENCE NO.: 82:4041a,4044a

TITLE: Interactions of the new combined preparation Nivaline P with narcotic analgesics

AUTHOR(S): Mitsov, V.; Paskov, D.; Ilieva, A.; Vlaskovska, M.

CORPORATE SOURCE: Med. Fak., Sofia, Bulg.

SOURCE: Farmatsiya (Sofia, Bulgaria) (1974), 24(1), 36-40  
CODEN: FMTYA2; ISSN: 0428-0296

DOCUMENT TYPE: Journal

LANGUAGE: Bulgarian

AB In cats, morphine [57-27-2]-induced apnea and a drop in blood pressure to zero were reversed by i.v. injection of nivaline-P (galanthamine-HBr-piminodine combination) [53321-09-8] at 1-2 mg/kg. The same result was observed when morphine was substituted by lydol (pethidine) [57-42-1] (10 mg/kg), promedol [64-39-1] (5 mg/kg), or palfium [2922-44-3] (5 mg/kg).

IT 53321-09-8

RL: BIOL (Biological study)  
(blood pressure and respiration response to narcotic analgesics reversal by)

RN 53321-09-8 CAPLUS

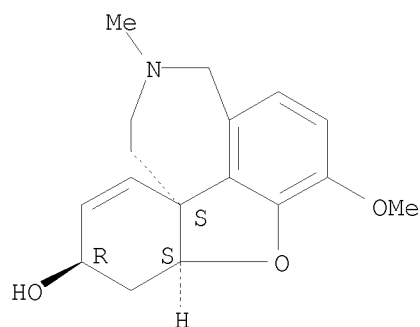
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).



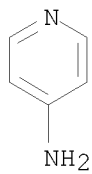
● HBr

CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H

10/573,517



● HCl

L61 ANSWER 106 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:445319 CAPLUS

DOCUMENT NUMBER: 81:45319

ORIGINAL REFERENCE NO.: 81:7197a,7200a

TITLE: Antagonism of the preparation nivaline-P towards often used anesthetics

AUTHOR(S): Mitsov, V.; Paskov, D.; Vlaskovska, M.; Ilieva, A.

CORPORATE SOURCE: Med. Fak., Med. Akad., Sofia, Bulg.

SOURCE: Farmatsiya (Sofia, Bulgaria) (1973), 23(5), 60-5  
CODEN: FMTYA2; ISSN: 0428-0296

DOCUMENT TYPE: Journal

LANGUAGE: Bulgarian

AB Nivaline-P [53321-09-8] antagonized the vasomotor effects of the noninhalation anesthetic, viadril [53-10-1], and the respiratory effects of inhalation and anesthetics, such as halothane [151-67-7] and ether [60-29-7], in exptl. studies.

IT 53321-09-8

RL: BIOL (Biological study)  
(anesthetic side effects antagonism by)

RN 53321-09-8 CAPLUS

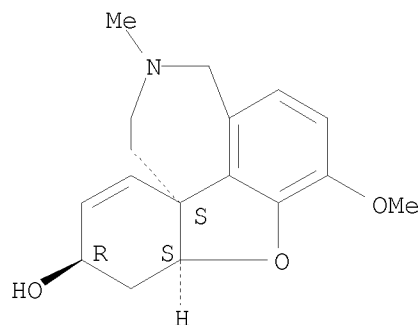
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrobromide, (4aS,6R,8aS)-, mixt. with 4-pyridinamine monohydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 1953-04-4

CMF C17 H21 N O3 . Br H

Absolute stereochemistry. Rotation (-).



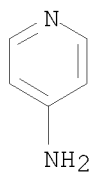
● HBr

CM 2

CRN 1003-40-3

CMF C5 H6 N2 . Cl H

10/573,517



● HCl

L61 ANSWER 107 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1972:11141 CAPLUS

DOCUMENT NUMBER: 76:11141

ORIGINAL REFERENCE NO.: 76:1825a,1828a

TITLE: Structure of a new alkaloid from *Chlidanthus fragans*

AUTHOR(S): Nogueiras, C.; Doepke, W.; Lehmann, G.

CORPORATE SOURCE: Esc. Quim., Univ. Habana, Havana, Cuba

SOURCE: Tetrahedron Letters (1971), (35), 3249-50

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: German

AB The alkaloid, an oil, was separated from other materials by repeated liquid chromatog. By chemical reactions and phys. data its structure was shown to be similar to galanthamine.

IT 357-70-0

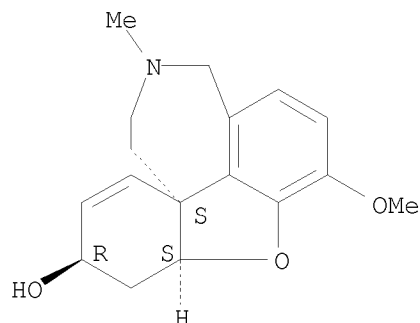
RL: BIOL (Biological study)

(alkaloids of *Chlidanthus fragans* in relation to)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



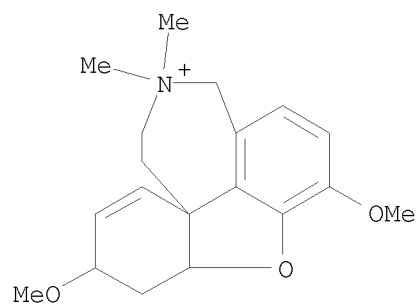
IT 27317-43-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 27317-43-7 CAPLUS

CN Galanthaminium, O,10-dimethyl-, iodide (9CI) (CA INDEX NAME)

10/573,517





L61 ANSWER 108 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:406156 CAPLUS

DOCUMENT NUMBER: 75:6156

ORIGINAL REFERENCE NO.: 75:1027a,1030a

TITLE: Syntheses of heterocyclic compounds. CCCLXXXVI.

Alternative total syntheses of galanthamine and

N-benzylgalanthamine iodide

AUTHOR(S): Kametani, Tetsuji; Seino, C.; Yamaki, Kazuya; Shibuya, Shiroshi; Fukumoto, Keiichiro; Kigasawa, Kazuo; Satoh, Fumio; Hiiragi, Mineharu; Hayasaka, Tetsutaro

CORPORATE SOURCE: Pharm. Inst., Tohoku Univ., Sendai, Japan

SOURCE: Journal of the Chemical Society [Section] C: Organic (1971), (6), 1043-7

CODEN: JSOOAX; ISSN: 0022-4952

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 75:6156

GI For diagram(s), see printed CA Issue.

AB N-Benzyl-2-bromo-5-hydroxy-N-(4-hydroxyphenethyl)-4-methoxybenzamide (I) with  $K_3Fe(CN)_6 \cdot Na_2CO_3$  gave 3% narnedine-type enone (II). Reduction ( $LiAlH_4$ -THF) of II gave the ( $\pm$ )-enol (III) (the N-benzyl analog of galanthamine), which reacted with MeI-MeOH to give ( $\pm$ )-N-benzylgalanthamine iodide (IV). N-(2-Bromo-5-hydroxy-4-methoxybenzyl)-4-hydroxyphenyl-N-methylacetamide (V) with  $K_3Fe(CN)_6 \cdot NaHCO_3$  gave the enone (VI), which was reduced ( $LiAlH_4$ ) to a mixture of ( $\pm$ )-galanthamine (VII) and ( $\pm$ )-epigalanthamine (VIII). Both (-)- and ( $\pm$ )-galanthamine showed analgesic activity comparable to that of morphine.

IT 32392-11-3P 32392-12-4P 32392-13-5P

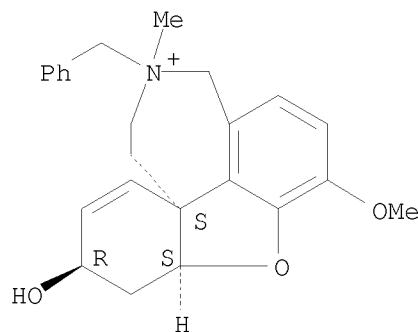
32392-14-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 32392-11-3 CAPLUS

CN Galanthaminium, 10-(phenylmethyl)-, iodide (9CI) (CA INDEX NAME)

Relative stereochemistry.

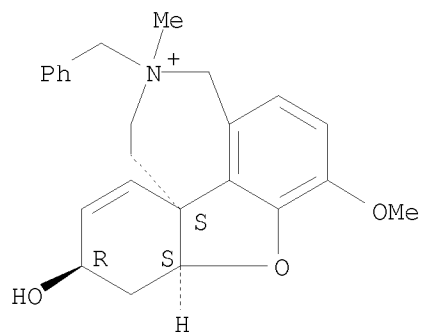
● I<sup>-</sup>

RN 32392-12-4 CAPLUS

CN Galanthaminium, 10-methyl-14-phenyl-, iodide (9CI) (CA INDEX NAME)

10/573,517

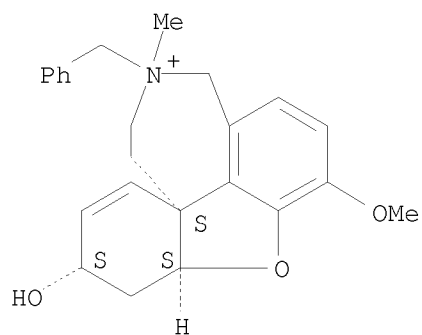
Absolute stereochemistry.



RN 32392-13-5 CAPLUS

CN Galanthaminium, 10-methyl-14-phenyl-, chloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

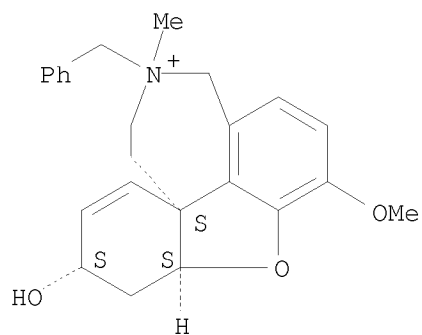


RN 32392-14-6 CAPLUS

CN Galanthaminium, 10-methyl-14-phenyl-, iodide, (3α)- (9CI) (CA INDEX NAME)

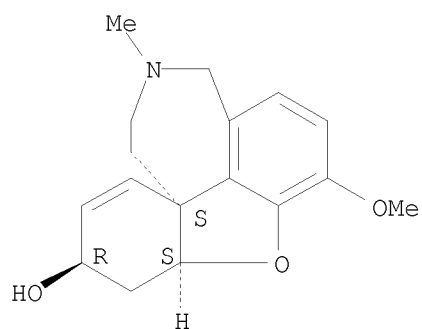
Absolute stereochemistry.

10/573,517



IT 357-70-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(total synthesis of)  
RN 357-70-0 CAPLUS  
CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L61 ANSWER 109 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:112265 CAPLUS

DOCUMENT NUMBER: 74:112265

ORIGINAL REFERENCE NO.: 74:18188h,18189a

TITLE: Syntheses of heterocyclic compounds. CCCLXXXI. Novel conversion of galanthamine into nivalidine under non-acidic conditions

AUTHOR(S): Kametani, Tetsuji; Yamaki, Kazuya; Shibuya, Shiroshi; Fukumoto, Keiichiro; Kigasawa, Kazuo; Satoh, Fumio; Hiiragi, Mineharu; Hayasaka, Tetsutaro

CORPORATE SOURCE: Pharm. Inst., Tohoku Univ., Sendai, Japan

SOURCE: Journal of the Chemical Society [Section] C: Organic (1971), (3), 590-2

CODEN: JSOOAX; ISSN: 0022-4952

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB Reaction of galanthamine with KOH-N<sub>2</sub>H<sub>4</sub>·H<sub>2</sub>O in [HO(CH<sub>2</sub>)<sub>2</sub>]<sub>2</sub>O at 200° gave nivalidine (I), anhydro-O-demethylgalanthamine (II, R = H) and its isomer (III), and anhydrogalanthamine (II, R = Me). Reaction of II (R = Me) with KOH-N<sub>2</sub>H<sub>4</sub>·H<sub>2</sub>O in [HO(CH<sub>2</sub>)<sub>2</sub>]<sub>2</sub>O at 200°, or refluxing with aqueous HCl gave I.

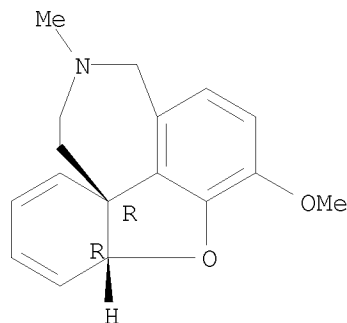
IT 31504-42-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 31504-42-4 CAPLUS

CN Galanthamine, 3,4-didehydro-3-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 357-70-0

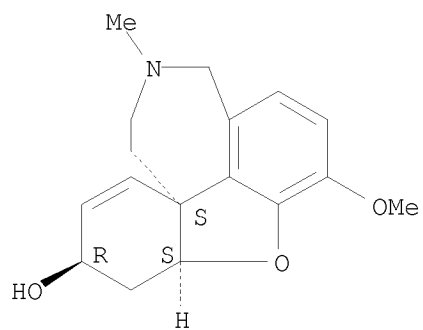
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with potassium hydroxide)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



L61 ANSWER 110 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:425709 CAPLUS

DOCUMENT NUMBER: 73:25709

ORIGINAL REFERENCE NO.: 73:4287a,4290a

TITLE: Structure and biosynthesis of chlidanthine

AUTHOR(S): Bhandarkar, J. G.; Kirby, G. W.

CORPORATE SOURCE: Chem. Dep., Univ. Technol., Loughborough, UK

SOURCE: Journal of the Chemical Society [Section] C: Organic  
(1970), (9), 1224-7

CODEN: JSOOAX; ISSN: 0022-4952

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

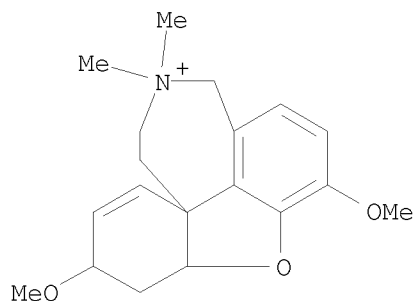
AB The structure of the phenolic Amaryllidaceae alkaloid, chlidanthine (I), was determined by N,O-dimethylation to give (-)-galanthamine methiodide, which was in turn prepared from (-)-galanthamine via (-)-epigalanthamine. The relative stereochemistry of the pair of epimeric, allylic alcs. derived from Pummerer's ketone was determined. The conversion of these alcs. into allylic chlorides with SOCl<sub>2</sub> and with trisdimethylaminophosphine and CCl<sub>4</sub> is described. Biosynthetic conversion of tritiated galanthamine and narwedine into I was observed in Chlidanthus fragrans.

IT 27317-43-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 27317-43-7 CAPLUS

CN Galanthaminium, O,10-dimethyl-, iodide (9CI) (CA INDEX NAME)

● I<sup>-</sup>

L61 ANSWER 111 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:425708 CAPLUS

DOCUMENT NUMBER: 73:25708

ORIGINAL REFERENCE NO.: 73:4287a,4290a

TITLE: NMR-spectroscopic study of the stereochemistry of galanthamine-type alkaloids. I

AUTHOR(S): Yagudaev, M. R.; Abdusamatov, A.; Yunusov, S. Yu.

CORPORATE SOURCE: Inst. Khim. Rast. Veshchestv, Tashkent, USSR

SOURCE: Khimiya Prirodnikh Soedinenii (1970), 6(2), 235-9  
CODEN: KPSUAR; ISSN: 0023-1150

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI For diagram(s), see printed CA Issue.

AB PMR spectra of galanthamine (I), epigalanthamine and its acetyl derivative indicated the OH group in I is quasiaxial but in epigalanthamine is quasiequatorial and the ring B possesses half chair conformation in cis linkage with ring C. In solution, the OH in I is intermol. H-bonded.

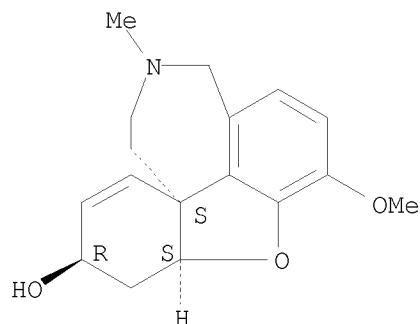
IT 357-70-0 27281-90-9

RL: PRP (Properties)  
(configuration of)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

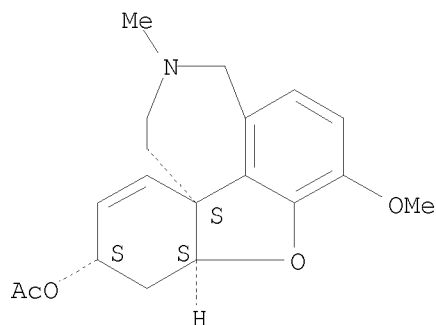
Absolute stereochemistry. Rotation (-).



RN 27281-90-9 CAPLUS

CN Galanthamine, acetate (ester), (3 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L61 ANSWER 112 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1968:494718 CAPLUS

DOCUMENT NUMBER: 69:94718

ORIGINAL REFERENCE NO.: 69:17706h,17707a

TITLE: Dependence of anticholinesterase activity on structure for a series of galanthamine derivatives

AUTHOR(S): Umarova, Sh. S.; Zakirov, U. B.; Kamilov, I. K.

CORPORATE SOURCE: USSR

SOURCE: Farmakol. Alkaloidov Glikozidov (1967), 103-6.  
Editor(s): Kamilov, I. K. Izd. "Fan" Uzb. SSR:  
Tashkent, USSR.

CODEN: 20CEAM

DOCUMENT TYPE: Conference

LANGUAGE: Russian

AB Rabbits were i.v. administered galanthamine iodomethylate, iodoethylate, iodoisopropylate, iodobutylate (I), iodoamylate (II), chloroamylate (III), isogalanthamine-HBr, apogalanthamine-HBr, methylapogalanthamine-HCl, d-narwedine-HBr, and galanthamine-HBr and the cholinesterase activity in their blood plasma was determined 5-120 min. later. All compds. tested showed an anticholinesterase activity during 5-15 min. after the administration. Compds. I-III were the most active, inducing an inhibition of cholinesterase activity down to 29-37% with doses of 0.3 mg./kg. Other compds. showed a similar effect in higher doses. Derivs. of galanthamine showed the highest toxicity (LD50 = 0.79-2.50 mg./kg.). Other compds. tested had a much lower toxicity (20.0-58.5 mg./kg.). It is concluded that the introduction of alkyl groups into the mol. of galanthamine increase the anticholinesterase activity.

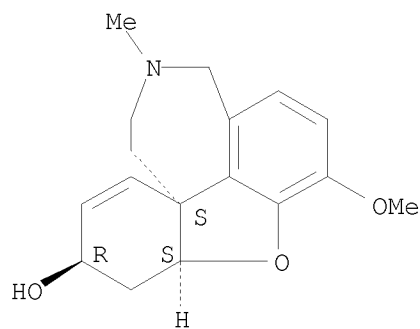
IT 1953-04-4 3520-79-4 3891-74-5  
21016-68-2 21016-69-3 21155-25-9  
21155-26-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(anticholinesterase activity of)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

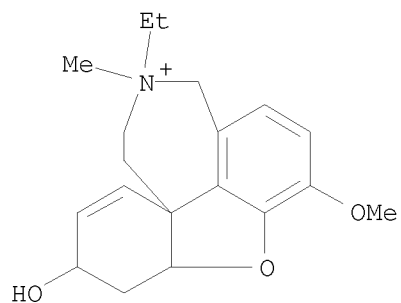


● HBr



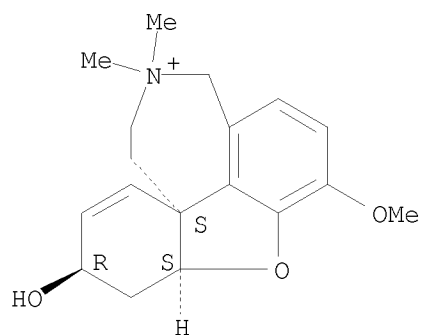
10/573,517

RN 3520-79-4 CAPLUS  
CN Galanthaminium, 10-ethyl-, iodide (9CI) (CA INDEX NAME)



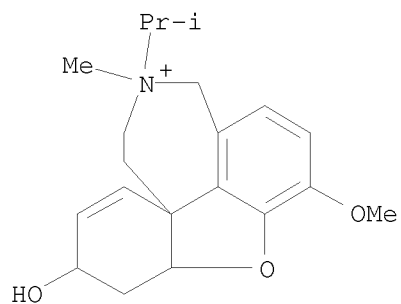
RN 3891-74-5 CAPLUS  
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 1,2,3,4,8,8a-hexahydro-7-hydroxy-10-methoxy-2,2-dimethyl-, iodide (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 21016-68-2 CAPLUS  
CN Galanthaminium, 10-(1-methylethyl)-, iodide (9CI) (CA INDEX NAME)

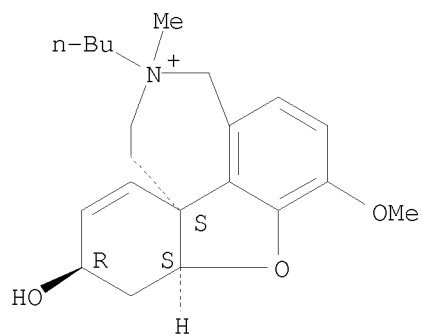
10/573,517



RN 21016-69-3 CAPLUS

CN Galanthaminium, 10-butyl-, iodide (9CI) (CA INDEX NAME)

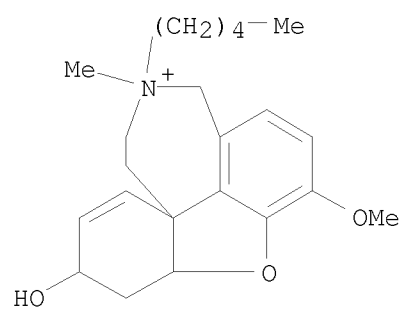
Absolute stereochemistry.



RN 21155-25-9 CAPLUS

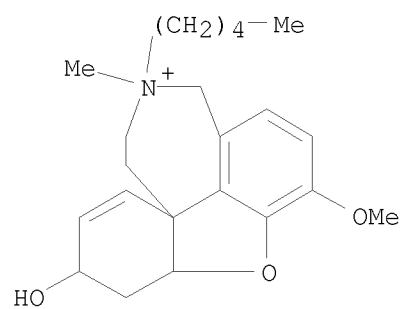
CN Galanthaminium, 10-pentyl-, iodide (9CI) (CA INDEX NAME)

10/573,517



RN 21155-26-0 CAPLUS

CN Galanthaminium, 10-pentyl-, chloride (9CI) (CA INDEX NAME)



L61 ANSWER 113 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1967:410147 CAPLUS

DOCUMENT NUMBER: 67:10147

ORIGINAL REFERENCE NO.: 67:1899a,1902a

TITLE: Comparative study of the anticholinesterase activity of the alkaloid galanthamine and its derivatives

AUTHOR(S): Umarova, Sh. S.; Zakirov, U. B.; Kamilov, I. K.

SOURCE: Farmakol. Farmakoter. Alkaloidov Glikozidov (1966), 55-60

From: Ref. Zh., Farmakol. Khimoter. Sredstva.

Toksikol. 1967, Abstr. No. 2.54.202

CODEN: 16KXAC

DOCUMENT TYPE: Conference

LANGUAGE: Russian

AB The activity of true (in erythrocytes) and pseudo (in plasma) cholinesterase (I) was determined in rabbits after injection of the hydroxymethylate, hydroxyethylate, hydroxypropylate, hydroxybutylate, and hydroxyamylate of galanthamine. For comparison, the true and pseudo I activities were determined after injection of galanthamine-HBr. The preps. were injected i.v. as 0.1% solns. in doses of 0.3 mg./kg., with the exception of the hydroxymethylate and the HBr salt whose doses were 0.05, 0.1, and 0.3, and 1, 2, and 4 mg./kg., resp. All preps. inhibited I activities, especially that of true I. Maximum inhibition was after 5-15 min.

The initial levels were recovered within .apprx.2 hrs. Hydroxymethylate was most effective. The HBr salt inhibited the enzyme activity only in a large dose (2 mg./kg.). The mechanism of the cholinomimetic effect of the preps. was to a considerable extent determined by their anticholinesterase action.

IT 1953-04-4 14973-26-3

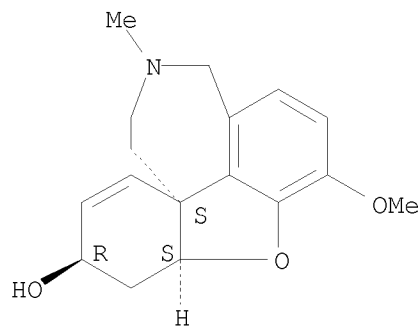
RL: BIOL (Biological study)

(cholinesterase inhibition by, parasympathomimetic activity and)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

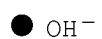
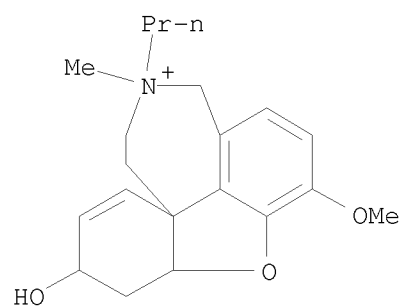


● HBr

RN 14973-26-3 CAPLUS

10/573,517

CN Galanthaminium, 10-propyl-, hydroxide (9CI) (CA INDEX NAME)



L61 ANSWER 114 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1967:53993 CAPLUS

DOCUMENT NUMBER: 66:53993

ORIGINAL REFERENCE NO.: 66:10159a,10162a

TITLE: Comparative evaluation of the pharmacological action of quaternary galanthamine derivatives

AUTHOR(S): Umarova, Sh. S.; Zakirov, U. B.; Kamilov, I. K.

CORPORATE SOURCE: Inst. Chem. Plant Substances, Tashkent, USSR

SOURCE: Farmakologiya Alkaloidov (1965), No. 2, 258-63

CODEN: FARVAZ; ISSN: 0428-027X

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI For diagram(s), see printed CA Issue.

AB After administration of galanthamine-HBr (I) and quaternary galanthamine derivs. (II) to albino mice, the following LD50 values were found (compound, and i.v., i.p., s.c., and oral LD50, in mg./kg., given): I, 8.0, 14.4, 16.2, 18.7; II (R = Me), 1.0, 3.6, 6.5, 170; II (R = Et), 2.0, 4.1, 4.7, 84.5; II (R = iso-Pr), 3.0, 6.1, 5.7, 127; II (R = C4H9), 1.9, 2.2, 3.2, 100; II (R = C5H11), 1.2, 1.9, 2.8, 86. The big difference between toxicity ratios in parenteral and oral administration is ascribed to the fact that compds. containing trivalent N penetrate more easily through the mucous membranes of the gastrointestinal tract than their quaternary analogs. In muscle contraction expts. on cats, all quaternary compds., and especially the Me and C5 derivs., were pharmacol. more active than I.

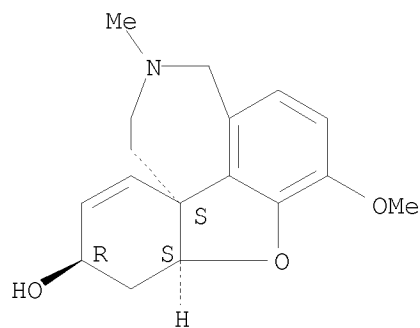
IT 1953-04-4 14973-26-3

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pharmacology of)

RN 1953-04-4 CAPLUS

CN 10H-Benzofuro[3a,3,2-ef][2]benzazepin-10-ol, 1,2,3,4,8a,9-hexahydro-7-methoxy-3-methyl-, hydrobromide (1:1), (8aS,10R,12aS)- (CA INDEX NAME)

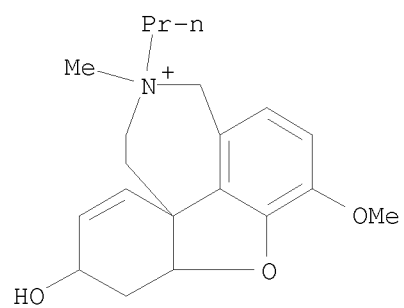
Absolute stereochemistry. Rotation (-).



RN 14973-26-3 CAPLUS

CN Galanthaminium, 10-propyl-, hydroxide (9CI) (CA INDEX NAME)

10/573,517



L61 ANSWER 115 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:93843 CAPLUS

DOCUMENT NUMBER: 62:93843

ORIGINAL REFERENCE NO.: 62:16835e-f

TITLE: Effect of antibiotics on the synthesis of nucleic acids and protein in experimental brucellosis

AUTHOR(S): Sataev, M. M.

SOURCE: Meditsinskii Zhurnal Uzbekistana (1964), (12), 40-3

CODEN: MZUZA8; ISSN: 0025-830X

DOCUMENT TYPE: Journal

LANGUAGE: Russian

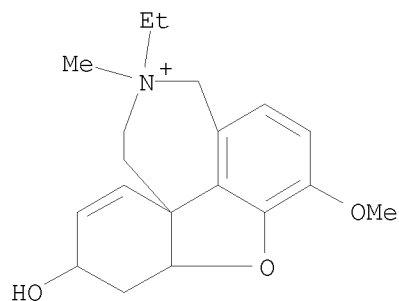
AB Guinea pigs with brucellosis were injected intramuscularly with 4000 units of tetracycline (I)/day in a 0.25% Novocaine solution for 10 days and the treatment was repeated after a 20-day break; 5 hrs. before killing, the animals were given glycine-14C and its incorporation into nucleic acids and proteins in spleen, liver, lymph nodes, and blood serum was followed. I suppressed nucleic acid synthesis in the liver, slightly decreased protein metabolism in the liver and the lymph nodes, and inhibited glycine-14C incorporation in the spleen.

IT 3520-79-4

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 3520-79-4 CAPLUS

CN Galanthaminium, 10-ethyl-, iodide (9CI) (CA INDEX NAME)





L61 ANSWER 116 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:93842 CAPLUS

DOCUMENT NUMBER: 62:93842

ORIGINAL REFERENCE NO.: 62:16835e

TITLE: Pharmacology of galanthamine ethiodide

AUTHOR(S): Umarova, Sh. S.; Zakirov, U. B.; Kamilov, I. K.

SOURCE: Meditsinskii Zhurnal Uzbekistana (1964), (11), 21-4

CODEN: MZUZA8; ISSN: 0025-830X

DOCUMENT TYPE: Journal

LANGUAGE: Russian

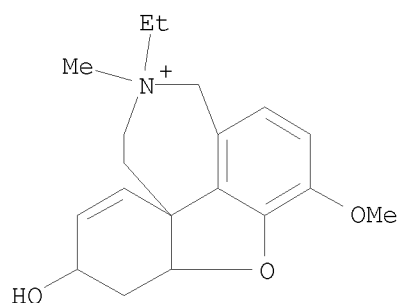
AB Galanthamine ethiodide (I) caused extension of amplitude of muscular contraction in a dose of 0.1 mg./kg. Its effect on increased sensitivity of skeletal muscles to acetylcholine was 5 times as high in atropinized cats as that of galanthamine hydrobromide (II). L.D.50 of I was 9.7 mg./kg. in subcutaneous and 6.57 in intraperitoneal administration, whereas that of II was 16.7 and 14.6 mg./kg., resp.

IT 3520-79-4

(Derived from data in the 7th Collective Formula Index (1962-1966))

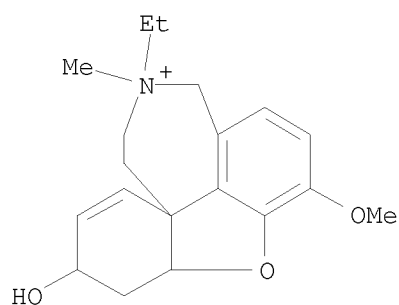
RN 3520-79-4 CAPLUS

CN Galanthaminium, 10-ethyl-, iodide (9CI) (CA INDEX NAME)

● I<sup>-</sup>

10/573,517

L61 ANSWER 117 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1965:93841 CAPLUS  
DOCUMENT NUMBER: 62:93841  
ORIGINAL REFERENCE NO.: 62:16835d-e  
TITLE: Monoamines in the specific serotonergic and  
noradrenergic neurons in the rat brain as influenced  
by tetrabenazine  
AUTHOR(S): Bartonicek, V.  
CORPORATE SOURCE: Karolinska Inst., Stockholm  
SOURCE: Medicina et Pharmacologia Experimentalis (1965),  
12(4), 254-8  
CODEN: MPHEAE; ISSN: 0543-3002  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Tetrabenazine (I), 50 and 100 mg./kg., caused depletion of  
5-hydroxytryptamine and noradrenaline in the monoaminergic neurons of the  
brain stem. I also caused miosis and blepharospasm. All effects  
disappeared by 20 hrs. after injection.  
IT 3520-79-4  
(Derived from data in the 7th Collective Formula Index (1962-1966))  
RN 3520-79-4 CAPLUS  
CN Galanthaminium, 10-ethyl-, iodide (9CI) (CA INDEX NAME)



● I<sup>-</sup>

L61 ANSWER 118 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1964:484457 CAPLUS

DOCUMENT NUMBER: 61:84457

ORIGINAL REFERENCE NO.: 61:14732f-h,14733a-c

TITLE: Stereochemistry of hydrastine, narcotine, ophiocarpine, and their derivatives. I. Absolute configuration of hydrastine and ophiocarpine

AUTHOR(S): Ota, Michitoshi; Tani, Hideo; Morozumi, Sekiko

CORPORATE SOURCE: Kowa Co., Ltd., Tokyo

SOURCE: Chemical &amp; Pharmaceutical Bulletin (1964), 12(9), 1072-80

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB cf. CA 59, 7576h. The known absolute configuration (13aS) of (-)-canadine [(-)-I] was used to assign those of 1- $\alpha$ - (II) (R = H) (III) and 1- $\beta$ -hydrastine (IV) (R = H) (V), ophiocarpine (VI) (R = H) (VII) (heavy line on N atom in structure shown indicates direction of orientation of electron pair), and 13-epiophiocarpine (VIII) (R = H) (IX) [cf. note for (VII)] as (3'R,5R)-, (3'S,5R)-, (13R,13aR)-, and (13S,13aR), resp. Thus, III and V were chemically correlated with I via VII and IX, resp., as follows: LiAlH<sub>4</sub> reduction of III and V gave X (R = OH, R<sub>1</sub> = H) (XII) and XI (R = OH, R<sub>1</sub> = H) (XIII), resp., and XII and XIII treated with SOCl<sub>2</sub> in CHCl<sub>3</sub> at room temperature produced X (R = Cl, R<sub>1</sub> = H) (XIV).HCl, m. 138-41°, and XI (R = Cl, R<sub>1</sub> = H) (XV).HCl, m. 160-3°, [ $\alpha$ ]<sub>D</sub> 101.5° (c, 1, CHCl<sub>3</sub> throughout unless otherwise stated), resp. XIV. HCl were cyclized in saturated K<sub>2</sub>CO<sub>3</sub> solution at room temperature

to

VII.MeCl, m. 191-3° (decomposition), [ $\alpha$ ]<sub>D</sub> -166.5° (c 1, EtOH) and IX.MeCl, m. 225-9° (decomposition), [ $\alpha$ ]<sub>D</sub> -169-5° (c 0.99, EtOH), resp. VII and IX methotosylates mixed with NaI in MeCN gave VII.MeI, m. 252-4° (decomposition), and IX.MeI, m. 227-9° (decomposition), resp. Pyrolysis of VII.MeCl at 205-10°/2-3 mm. produced 13% VII; acetate (XVI) m. 141-3°, [ $\alpha$ ]<sub>D</sub> -357.5°, and IX.MeCl refluxed 6.5 hrs. in o-C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub> gave 68% IX, m. 161-2°, [ $\alpha$ ]<sub>D</sub> -282°; acetate (XVII) m. 170-1°, [ $\alpha$ ]<sub>D</sub> -129°. XVI and XVII were hydrogenolyzed in EtOH over 5% Pd-C at 80 kg./cm.<sup>2</sup> H to give 13% (-)-I and 42% (±)-I and 5% I and 49% (±)-I, resp. The C-13 configuration of VII and IX was established from the

determination

that VII (pK<sub>a</sub> 5.57) was a stronger base than IX (pK<sub>a</sub> 5.15), and hence was the cisoid isomer having an axial C-13 OH group. This result was confirmed from the Me proton signal of the VII axial acetoxy group at 1.78 p.p.m. showing a diamagnetic shift of 0.45 p.p.m. from the equatorial acetoxy resonance of IX due to the shielding effect of ring D. Catalytic (10% Pd-C) hydrogenation of XIV.HCl and XV.HCl in MeOH gave X (R = R<sub>1</sub> = H), m. 153°, [ $\alpha$ ]<sub>D</sub> 80°, and XI (R = R<sub>1</sub> = H), m. 84-6°, [ $\alpha$ ]<sub>D</sub> 86°, resp.

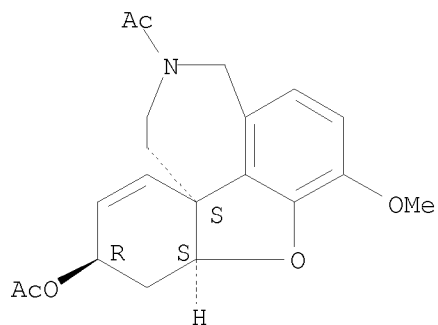
IT 61948-10-5P, Galanthamine, N-acetyl-N-demethyl-, acetate (ester), (-)- 107894-72-4P, Galanthamine, N-acetyl-N-demethyl-, (-)-  
RL: PREP (Preparation)  
(preparation of)

RN 61948-10-5 CAPLUS

CN Galanthamine, 10-acetyl-10-demethyl-, acetate (ester) (9CI) (CA INDEX NAME)

10/573,517

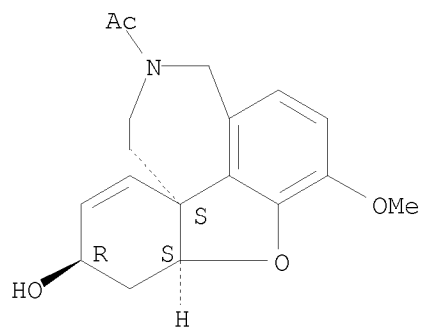
Absolute stereochemistry.



RN 107894-72-4 CAPLUS

CN Ethanone, 1-[(4aS,6R,8aS)-4a,5,9,10-tetrahydro-6-hydroxy-3-methoxy-6H-benzofuro[3a,3,2-ef][2]benzazepin-11(12H)-yl]- (CA INDEX NAME)

Absolute stereochemistry.



10/573,517

L61 ANSWER 119 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1964:85619 CAPLUS

DOCUMENT NUMBER: 60:85619

ORIGINAL REFERENCE NO.: 60:15019b

TITLE: Influence of oxymethylate of galanthamine on arecoline and atropine action

AUTHOR(S): Umarova, Sh. S.; Kamilov, I. K.; Polievtsev, N. P.

SOURCE: Farmakol. Alkaloidov, Akad. Nauk Uz. SSR, Inst. Khim. Rast. Vehchestv (1962), No. 1, 181-3

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

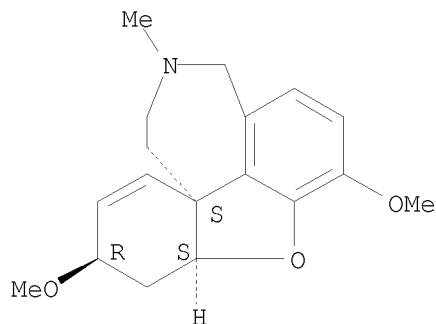
AB Oxymethylate of galanthamine potentiates the action of arecoline and inhibits that of atropine in white mice.

IT 98693-64-2, Galanthamine, O-methyl-  
(in physiol. response to arecoline and atropine)

RN 98693-64-2 CAPLUS

CN Galanthamine, O-methyl- (7CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L61 ANSWER 120 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1963:469294 CAPLUS

DOCUMENT NUMBER: 59:69294

ORIGINAL REFERENCE NO.: 59:12852h,12853a-b

TITLE: Conversion of morphine alkaloids and galanthamine to 1-methyl -3a-(3-methoxy - 6 - methylphenyl) - 4,2' - epoxyoctahydroindole

AUTHOR(S): Mishima, Hiroshi; Kurabayashi, Masaaki; Iwai, Issei

CORPORATE SOURCE: Sankyo Co., Ltd., Tokyo, Japan

SOURCE: Journal of Organic Chemistry (1963), 28(10), 2621-6  
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB Cleavage of the B-ring of 14-hydroxydeoxydihydrocodeine was achieved on its methine base with loss of C-9 by a modified Prevost reaction to yield the norseco compound (I). I was finally transformed to 2 isomers of 1-methyl-3a-(3-methoxy-6-methylphenyl)-4,2'-epoxyoctahydroindole, which has the carbon skeleton of mesembrane, one of the type of Amaryllidaceae alkaloids. The remaining isomer (II) was obtained by a multiple-step transformation from galanthamine. The stereo-chemistry of these isomers and their related compds. are discussed.

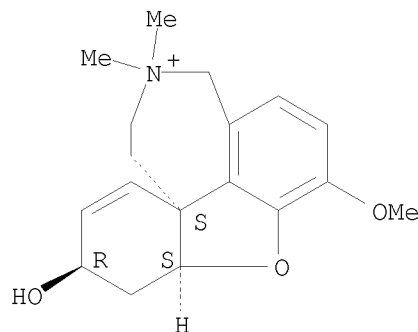
IT 98860-79-8

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 98860-79-8 CAPLUS

CN Galanthaminium, 10-methyl-, chloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● Cl<sup>-</sup>

IT 357-70-0P, Galanthamine

RL: PREP (Preparation)

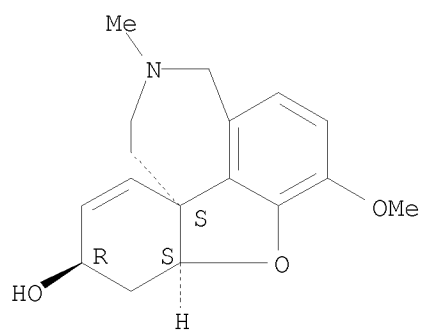
(in nervous system response to chlorpro-1,2,3,3a,4,5,6,6a-octahydro-  
8-methoxy-3,11-dimethylbenzofuro[3,2-d]indole formation from)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-  
methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/573,517



L61 ANSWER 121 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1963:469293 CAPLUS

DOCUMENT NUMBER: 59:69293

ORIGINAL REFERENCE NO.: 59:12851h,12852e-h

TITLE: Investigation of alkaloids from *Oxytropis muricata*

AUTHOR(S): Duboshina, Z.N.; Proskurnina, N. F.

SOURCE: Zhurnal Obshchei Khimii (1963), 33(6), 2071-3

CODEN: ZOKHA4; ISSN: 0044-460X

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB *O. muricata* was soaked with ammonia, extracted with dichloroethane, the extract extracted with 5% H<sub>2</sub>SO<sub>4</sub>, the acidic solution alkalized with 25% NH<sub>3</sub>, extracted with

CHCl<sub>3</sub>, and the CHCl<sub>3</sub> evaporated to yield 0.38% alkaloid (I), m. 147-9° (CHCl<sub>3</sub>). Extraction of the plant with 3% H<sub>2</sub>SO<sub>4</sub> gave 0.82% I, C<sub>15</sub>H<sub>15</sub>, NO<sub>2</sub>; HCl salt m. 194-7°. I(10g.) was heated 5hrs. in 50ml. concentrated HCl and the mixture was extracted with ether to yield 5.4 g. BzOH. The H<sub>2</sub>O layer was alkalized with 25% NH<sub>3</sub> and extracted with ether to yielding 4.3 g. I. The base was dissolved in 5% HCl. From the solution 0.74 g. I crystallized, m. 146-7°. From the filtrate 5 fractions were obtained by alkalization with N NaOH and extraction with ether. All fractions but the first gave crystalline hydrochlorides. The hydrochloride from the 5th fraction m. 208-14°, C<sub>8</sub>H<sub>11</sub>NO.HCl. Fractions 2-4 were combined and crystallized from acetone to yield a compound, m. 142-6°, C<sub>8</sub>H<sub>11</sub>NO.HCl. The structure of N-benzoylphenylaminomethylcarbinol was assigned to I.

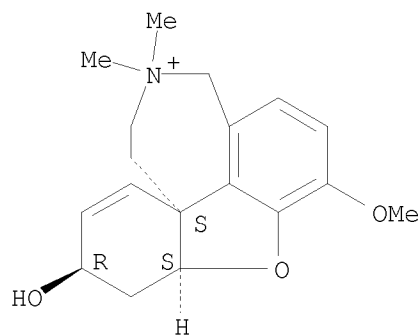
IT 98860-79-8

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 98860-79-8 CAPLUS

CN Galanthaminium, 10-methyl-, chloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● Cl<sup>-</sup>



L61 ANSWER 122 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1963:421039 CAPLUS

DOCUMENT NUMBER: 59:21039

ORIGINAL REFERENCE NO.: 59:3716c-d

TITLE: Dyeing keratinaceous materials with nitrosubstituted p-phenylenediamine compositions

INVENTOR(S): Brunner, Walter H.; Halasz, Alexander

SOURCE: 3 pp.

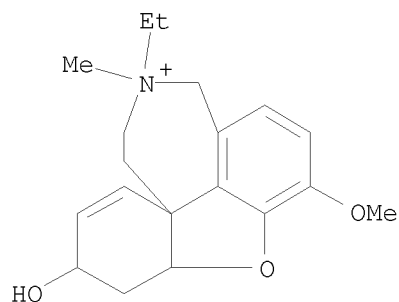
DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 3088878		19630507	US 1960-70907	19601122
PRIORITY APPLN. INFO.:				US	19601122
AB	1-(2-Hydroxyethylamino)-2,4-dinitrobenzene (113.5 g.) and 200 g. 50% H <sub>2</sub> SO <sub>4</sub> hydrogenated at 60° and 50 lb./ sq. in. H over Pt-C gave 1-(2-hydroxyethylamino)-2-nitro-4-aminobenzene (I), m. 127°. A composition containing I for use as a hair dye was described.				
IT	3520-79-4 3891-74-5 21016-68-2 21016-69-3 21155-25-9 102521-60-8 103306-21-4 103513-55-9 107741-48-0 107893-03-8 (Derived from data in the 7th Collective Formula Index (1962-1966))				
RN	3520-79-4 CAPLUS				
CN	Galanthaminium, 10-ethyl-, iodide (9CI) (CA INDEX NAME)				

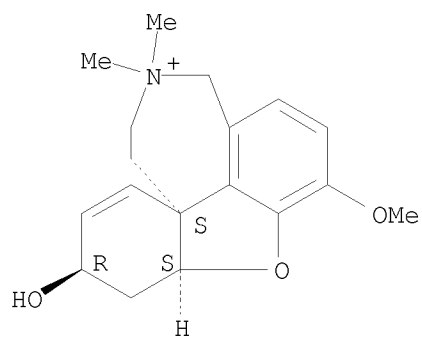
● I<sup>-</sup>

RN 3891-74-5 CAPLUS

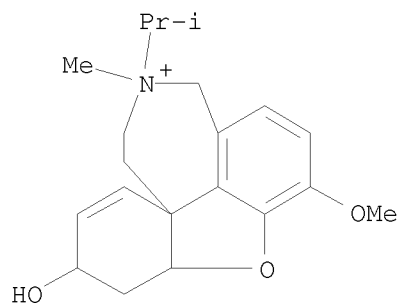
CN 7H-Benzofuro[3a,3,2-ef]-2-benzazepinium, 1,2,3,4,8,8a-hexahydro-7-hydroxy-10-methoxy-2,2-dimethyl-, iodide (1:1), (4aS,7R,8aS)- (CA INDEX NAME)

Absolute stereochemistry.

10/573,517



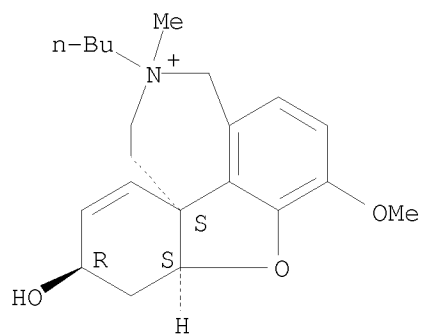
RN 21016-68-2 CAPLUS  
CN Galanthaminium, 10-(1-methylethyl)-, iodide (9CI) (CA INDEX NAME)



RN 21016-69-3 CAPLUS  
CN Galanthaminium, 10-butyl-, iodide (9CI) (CA INDEX NAME)

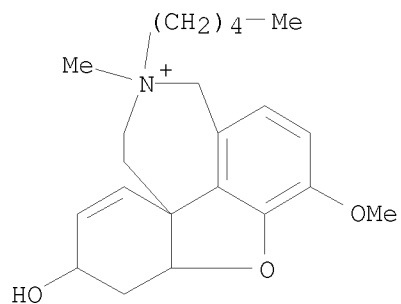
Absolute stereochemistry.

10/573,517



RN 21155-25-9 CAPLUS

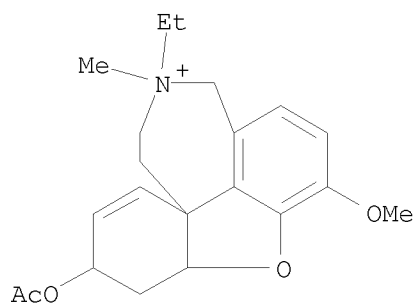
CN Galanthaminium, 10-pentyl-, iodide (9CI) (CA INDEX NAME)



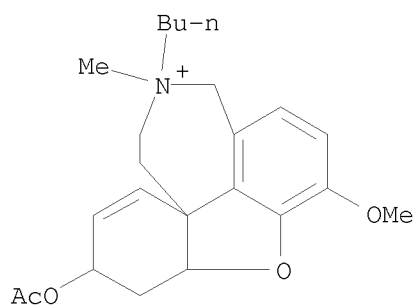
RN 102521-60-8 CAPLUS

CN Galanthaminium, O-acetyl-10-ethyl-, iodide (9CI) (CA INDEX NAME)

10/573,517

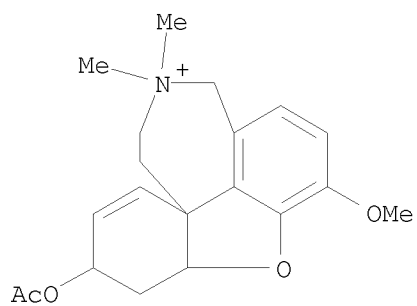


RN 103306-21-4 CAPLUS  
CN Galanthaminium, O-acetyl-10-butyl-, iodide (9CI) (CA INDEX NAME)

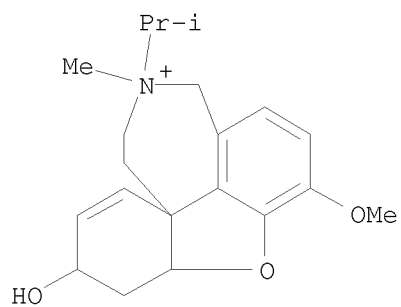


RN 103513-55-9 CAPLUS  
CN Galanthaminium, O-acetyl-10-methyl-, iodide (9CI) (CA INDEX NAME)

10/573,517

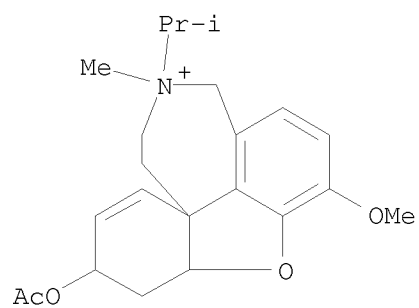


RN 107741-48-0 CAPLUS  
CN Galanthaminium, 10-(1-methylethyl)-, hydroxide (9CI) (CA INDEX NAME)



RN 107893-03-8 CAPLUS  
CN Galanthaminium, O-acetyl-10-(1-methylethyl)-, iodide (9CI) (CA INDEX NAME)

10/573,517



L61 ANSWER 123 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1963:66634 CAPLUS

DOCUMENT NUMBER: 58:66634

ORIGINAL REFERENCE NO.: 58:11411a-b

TITLE: Galanthaminone

AUTHOR(S): Combes, Georges; Lefebvre, Jean Charles

SOURCE: Bulletin de la Societe Chimique de France (1962)  
1805-9

CODEN: BSCFAS; ISSN: 0037-8968

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

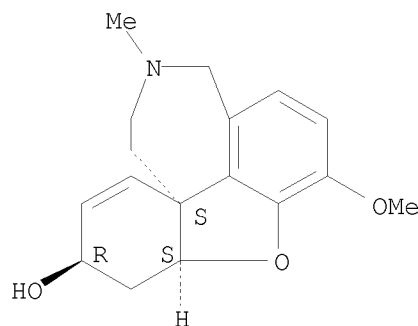
AB The oxidation of galanthamine (I) to dl-galanthaminone (II) with MnO<sub>2</sub> is studied by following the reaction kinetics by means of optical activity and ultraviolet spectra. The reaction takes place in two stages, oxidation to l-galanthaminone (III), followed by racemization of III. The rate of oxidation is proportional to the rate of disappearance of I. The rate of racemization increases with the appearance of III. III is stable in CHCl<sub>3</sub>, Et<sub>2</sub>O, or Me<sub>2</sub>CO, but racemizes instantly in MeOH. II and III gave identical semicarbazones, m. 226-30° (MeOH). Methylation of 0.632 g. III with 0.15 cc. MeI in 13 cc. acetone for 1 hr. at reflux temperature gave 0.863 g. needles, m. 202-4° (H<sub>2</sub>O), [ $\alpha$ ]<sub>D</sub> -98° (HCONMe<sub>2</sub>).

IT 357-70-0, Galanthamine  
(oxidation of)

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



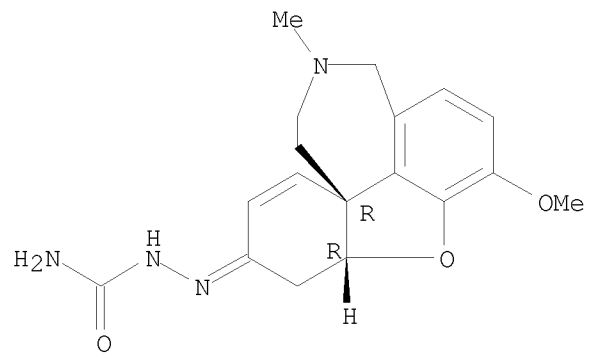
IT 99018-91-4P, Galanthaminone, semicarbazone  
RL: PREP (Preparation)  
(preparation of)

RN 99018-91-4 CAPLUS

CN Galanthamine, 3-deoxy-3-oxo-, (aminocarbonyl)hydrazone (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.

10/573,517





L61 ANSWER 124 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1962:462944 CAPLUS

DOCUMENT NUMBER: 57:62944

ORIGINAL REFERENCE NO.: 57:12559i,12560a-g

TITLE: Amaryllidaceae alkaloids. VI. The effect of several mineral acids on galanthamine

AUTHOR(S): Bubeva-Ivanova, L.

CORPORATE SOURCE: Res.Inst. Pharmacy, Sofia, Bulg.

SOURCE: Chemische Berichte (1962), 95, 1348-53

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB The alkaloid nivalidine, isolated from *Galanthus nivalis gracilis*, was identified as 6-O-methylapogalanthamine (I). Galanthamine (II) was degraded stepwise by mineral acids of various concns. to apogalanthamine (III). 2-Hydroxy-4,5-epoxy-6-O-methyltetrahydroapogalanthamine (IV) was isolated as the 1st degradation product. II (1 g.) in 100 cc. 10% HCl refluxed 3 hrs., cooled, diluted with Et<sub>2</sub>O, basified with NH<sub>4</sub>OH, and extracted with Et<sub>2</sub>O gave 0.85 g. I, platelets, m. 205-8°. I (1 g.) in 10 cc. 36% HCl heated 5 hrs. under CO<sub>2</sub> at 100°, concentrated in vacuo, dissolved in H<sub>2</sub>O, basified, and extracted with Et<sub>2</sub>O yielded 0.6 g. I, needles, m. 206-8° (C<sub>6</sub>H<sub>6</sub>); it gives a dark gray color with CH<sub>2</sub>O-H<sub>2</sub>SO<sub>4</sub>. I (0.50 g.) in 10% alc. HBr diluted with Et<sub>2</sub>O to turbidity gave I.HBr, m. 238-9°. I (0.5 g.) in 13 cc. C<sub>5</sub>H<sub>5</sub>N and 13 cc. Ac<sub>2</sub>O kept 12 hrs. at 25-30° and evaporated, the residue dissolved in dilute H<sub>2</sub>SO<sub>4</sub>, basified, and extracted with Et<sub>2</sub>O, and the extract evaporated yielded 0.35 g. Ac derivative of I, platelets, m. 107-9.5° (Et<sub>2</sub>O). II (1 g.) in 100 cc. 2% HCl refluxed 3 hrs., cooled, basified with NH<sub>4</sub>OH, and extracted with Et<sub>2</sub>O yielded IV, platelets, m. 182-4°, [ $\alpha$ ]<sub>D</sub> 20° -220° (c 1, CHCl<sub>3</sub>), also obtained by heating I with 2% or 10% H<sub>2</sub>SO<sub>4</sub> or 10% HBr; it gives with CH<sub>2</sub>O-H<sub>2</sub>SO<sub>4</sub> a violet color; IV.HBr, m. 245-7°. IV (0.5 g.) and 0.5 g. NaOH in 15 cc. Ac<sub>2</sub>O heated 1.5 hrs. at 100° and evaporated, and the residue dissolved in dilute H<sub>2</sub>SO<sub>4</sub>, basified, and extracted with Et<sub>2</sub>O gave 0.75 g. Ac derivative (V) of IV, amorphous, hygroscopic powder. V in EtOH acidified with 10% alc. HBr and diluted with Et<sub>2</sub>O to turbidity gave V.HBr, m. 249°. IV (0.8 g.) in 150 cc. CHCl<sub>3</sub> stirred 5 hrs. at room temperature with 8 g. MnO<sub>2</sub>, filtered, and evaporated, and the residue dissolved in dilute H<sub>2</sub>SO<sub>4</sub>, basified, and extracted with Et<sub>2</sub>O yielded 0.55 g. 2-oxo analog (VI) of IV, m. 184-5°; it gives with CH<sub>2</sub>O-H<sub>2</sub>O<sub>4</sub> a yellow-orange color. VI (0.30 g.), 0.30 g. H<sub>2</sub>NCONHNH<sub>2</sub>.HCl, and 1.5 g. AcONa in 50 cc. EtOH refluxed 3.5 hrs., filtered, concentrated, and diluted with MeOH gave the semicarbazone of VI, needles, m. 225-6°. IV (0.5 g.) in 50 cc. 10% HCl refluxed 3 hrs., neutralized, and extracted with Et<sub>2</sub>O gave I, needles, m. 206-8° (C<sub>6</sub>H<sub>6</sub>). I (0.50 g.) in 5 cc. 48% HBr refluxed 4 hrs. under CO<sub>2</sub>, and cooled gave III.HBr, platelets, m. 235-6° (EtOH). III.HBr in H<sub>2</sub>O basified and extracted with Et<sub>2</sub>O gave III, platelets, m. 203-4°. IV (0.50 g.) gave similarly 0.35 g. III, m. 204-5°; it gives with CH<sub>2</sub>O-H<sub>2</sub>SO<sub>4</sub> a dark gray color. II (1 g.) in 100 cc. CHCl<sub>3</sub> stirred 5 hrs. with 10 g. MnO<sub>2</sub>, filtered, and evaporated yielded 0.72 g. galanthaminone (VII), platelets, m. 188-90° (EtOH); it gives with CH<sub>2</sub>O-H<sub>2</sub>SO<sub>4</sub> a yellow-orange color. VII (0.30 g.), 0.30 g. H<sub>2</sub>NCONHNH<sub>2</sub>.HCl, 2.7 g. AcONa, and 15 cc. 90% EtOH refluxed 5 hrs. gave 0.18 g. semicarbazone of VII, prisms, m. 254-5° (MeOH). VII (1 g.) in 200 cc. Et<sub>2</sub>O refluxed 13 hrs. with 1 g. LiAlH<sub>4</sub>, treated with 20 cc. EtOAc, 10 cc. 25% aqueous NaOH, and 20 cc. H<sub>2</sub>O, and worked up gave 0.47 g. epigalanthamine (VIII), platelets, m. 188-90° (C<sub>6</sub>H<sub>6</sub>); it gives with CH<sub>2</sub>O-H<sub>2</sub>SO<sub>4</sub> a red-violet color;

10/573,517

VIII.HBr, m. 224-5°. VIII (0.2 g.) in 20 cc. CHCl<sub>3</sub> stirred 3 hrs. with 2 g. MnO<sub>2</sub> and evaporated yielded VII, m. 188-90°. The ultraviolet and infrared absorption spectra of I, II, and IV are recorded.

IT 98125-73-6P, Epigalanthamine, hydrobromide 99018-91-4P, Galanthaminone, semicarbazone

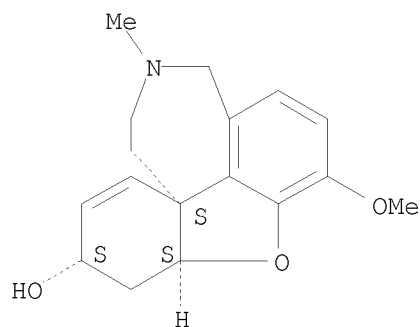
RL: PREP (Preparation)

(preparation of)

RN 98125-73-6 CAPLUS

CN Galanthamine, hydrobromide, (3 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

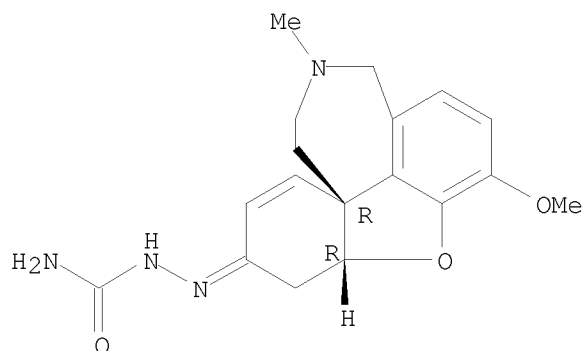


● HBr

RN 99018-91-4 CAPLUS

CN Galanthamine, 3-deoxy-3-oxo-, (aminocarbonyl)hydrazone (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



L61 ANSWER 125 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1962:404275 CAPLUS

DOCUMENT NUMBER: 57:4275

ORIGINAL REFERENCE NO.: 57:956c-d

TITLE: Antibacterial properties of some alkaloids

AUTHOR(S): Geonya, N. I.; Progressov, M. M.

SOURCE: Mikrobiol. Zh., Akad. Nauk Ukr. RSR (1961), 23(No. 4), 24-7

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

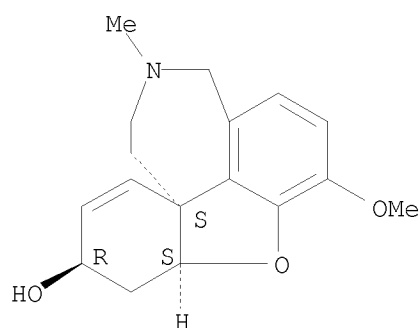
AB The antibiotic properties of 26 alkaloids in plants growing wild in the Ukraine were studied. Most tests were made during the flowering periods. Alkaloids were isolated by the dichloroethane extraction method and were used as the 1.0% sterile aqueous solution EtOH was used with alkaloids which were H<sub>2</sub>O-insol. Talicoflavine, talicoflavidine, herbacine, berberine, bulbocapnine, talicoflavimine, and 3 others possessed bacteriostatic properties. Other alkaloids induced morphol. and tinctorial variants in *Bacterium anthracoides*, *Corynebacterium diphtheriae*, and *Bacillus anthracis*.

IT 5072-47-9, Galanthamine, hydrochloride  
(bactericidal activity of)

RN 5072-47-9 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, hydrochloride (1:1), (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

L61 ANSWER 126 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1961:118639 CAPLUS

DOCUMENT NUMBER: 55:118639

ORIGINAL REFERENCE NO.: 55:22354e-i

TITLE: New alkaloids from *Nerine flexuosa* and *Nerine bowdenii*

AUTHOR(S): Boit, Hans G.; Dopke, Werner

CORPORATE SOURCE: Humboldt-Univ., Berlin

SOURCE: Naturwissenschaften (1960), 47, 109

CODEN: NATWAY; ISSN: 0028-1042

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB In the bulb of a rose-colored, blooming variety of *N. flexuosa* were found three hitherto unknown alkaloids, which were named flexamine (I), neflexine (II), and nerifline (III). I, m. 226-8° (decomposition),  $[\alpha]_D^{20}$  (c 0.2, CHCl<sub>3</sub>); methiodide m. 245° (decomposition), possessed 1 aromatically bound methoxy and 1 methylenedioxy group each and 1  $\alpha$ -glycol group which gave an infrared (I.R.) spectra similar to that of crinamidine; I gave no color reaction with H<sub>2</sub>SO<sub>4</sub>. II, m. 249-50° (decomposition),  $[\alpha]_D^{25}$  (c 0.25, CHCl<sub>3</sub>); picrate m. 195-6° (decomposition), contained 1 alc. hydroxy, 1 methylenedioxy, and 2 methoxy groups, I.R. spectra similar to that of parkamine; II gave no reaction with H<sub>2</sub>SO<sub>4</sub>. III, m. 152°, III salt m. 162-3°, contained 1 methoxy and 1 methylenedioxy group. The bulbs of *N. bowdenii* were reinvestigated. Two new alkaloids were found, which were named bodamine (IV) and base NB (V). IV, m. 208-10°,  $[\alpha]_D^{20}$  (c 0.15, CHCl<sub>3</sub>); HI salt m. 245° (decomposition); methiodide m. 265° (decomposition), had identical functional groups and an I.R. spectra similar to that of galanthamine (VI) and was presumably the DL-derivative of VI. V, m. 139-41°, contained 1 methylenedioxy group. Nerispine (VII), isolated from *N. undulata* (CA 51, 2822f), was a tertiary base, which contained 1 alc. hydroxy and 1 aromatically bound methoxy and methylenedioxy group each and yielded caranine and  $\alpha$ -dihydrocaranine by reductive demethoxylation with Na and n-pentanol. VII differed from falcatine presumably only by the position of the double bond or (and) the configuration of the hydroxy group.

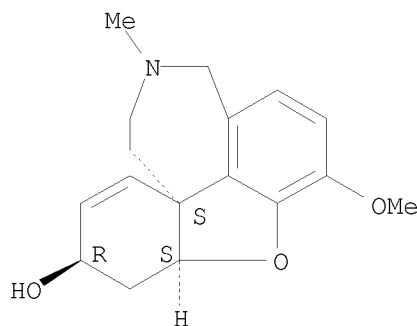
IT 357-70-0

(Derived from data in the 6th Collective Formula Index (1957-1961))

RN 357-70-0 CAPLUS

CN 6H-Benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-, (4aS,6R,8aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 133327-52-3P, Galanthaminium, 10-methyl-, iodide

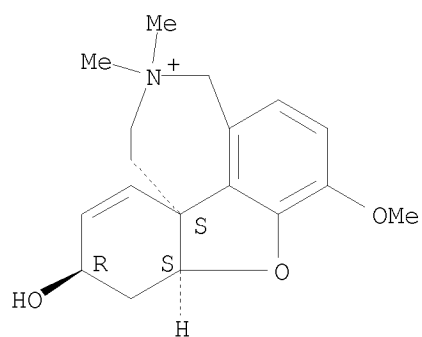
10/573,517

RL: PREP (Preparation)  
(preparation of)

RN 133327-52-3 CAPLUS

CN Galanthaminium, 10-methyl-, iodide, (±)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

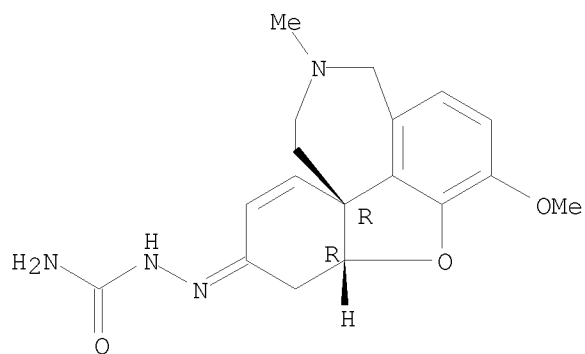


10/573,517

RN 99018-91-4 CAPLUS

CN Galanthamine, 3-deoxy-3-oxo-, (aminocarbonyl)hydrazone (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



L61 ANSWER 127 OF 127 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1958:55975 CAPLUS

DOCUMENT NUMBER: 52:55975

ORIGINAL REFERENCE NO.: 52:10124g-i,10125a-e

TITLE: Amaryllidaceae alkaloids. XIX. Alkaloids from trumpet, cup, and filled narcissus

AUTHOR(S): Boit, Hans G.; Dopke, Werner; Beitner, Anita

CORPORATE SOURCE: Humboldt Univ., Berlin

SOURCE: Chemische Berichte (1957), 90, 2197-202

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB cf. C.A. 51, 13885i. In addition to the known alkaloids were isolated from the bulbs of 19 species of trumpet narcissus, 12 species of cup narcissus, and 8 species of filled narcissus (doubles) the following new alkaloids: narwedine (I), irenine (II), insulamine (III), robecine (IV), daphnarcine (V), petomine (VI), base D. and base M [possibly identical with methylpseudoleucorine (VII)]. I is also obtained by oxidation of galanthamine (VIII) and has structure IX. The structure of II is identical with that of lycoramine (X) except for the configuration of the OH group. Bulbs (2-3 kg.) of each species were processed for alkaloids in the manner described previously (loc. cit.). I and V were eluted from the chromatographic columns with 9:1 C<sub>6</sub>H<sub>6</sub>-EtOAc, II and III with 7:3 C<sub>6</sub>H<sub>6</sub>-EtOAc, IV with 6:4 C<sub>6</sub>H<sub>6</sub>-EtOAc, base D with 9:1 EtOAc-CHCl<sub>3</sub>, and base M with 9:1 EtOAc-MeOH. II, prisms, m. 128° (EtOAc), [ $\alpha$ ]<sub>25</sub>D 120° (c 0.2, CHCl<sub>3</sub>), gave with concentrated H<sub>2</sub>SO<sub>4</sub> an orange-yellow color. I, prisms, m. 188-90° (Me<sub>2</sub>CO), [ $\alpha$ ]<sub>25</sub>D 100° (c 0.2, CHCl<sub>3</sub>), gave with concentrated H<sub>2</sub>SO<sub>4</sub> an orange-yellow color; it was recovered unchanged after 48 hrs. treatment with Ac<sub>2</sub>O and pyridine; picrate, m. 123° (H<sub>2</sub>O); I.MeI, prisms, m. 165-6° (decomposition) (1:1 MeOH-Me<sub>2</sub>CO). I (20 mg.), 20 mg. H<sub>2</sub>NCONHNH<sub>2</sub>.HCl, and 20 mg. KOAc in 3 cc. 90% EtOH refluxed 5 hrs. gave 15 mg. semicarbazone, prisms, m. 240-1° (decomposition). MnO<sub>2</sub> (0.6 g.) and 0.1 g. VIII in 40 cc. CHCl<sub>3</sub> stirred 3 hrs. at room temperature, filtered, and evaporated gave 0.09 g. I, m. 187-9° (Me<sub>2</sub>CO). I (57 mg.) in 10 cc. 0.5% HCl hydrogenated over 30 mg. PtO<sub>2</sub> until about 12 cc. H was consumed, basified with NH<sub>4</sub>OH, and extracted with CHCl<sub>3</sub>, the extract evaporated, and the resinous residue chromatographed on Al<sub>2</sub>O<sub>3</sub> gave 15 mg. II, m. 127°, and 25 mg. X, m. 120° (Me<sub>2</sub>CO). Base M, prisms, m. 253-4° (decomposition) (Me<sub>2</sub>CO), m. 221° (MeOH), [ $\alpha$ ]<sub>25</sub>D -40° (c 0.2, HCONMe<sub>2</sub>), showed no m.p. depression with VII; HClO<sub>4</sub> salt, m. 285° (decomposition) (EtOH-Et<sub>2</sub>O). III, plates, m. 177-8° (Me<sub>2</sub>CO), [ $\alpha$ ]<sub>25</sub>D -95° (c 0.1, CHCl<sub>3</sub>), gave with concentrated H<sub>2</sub>SO<sub>4</sub> an intense red color. V, prisms, m. 258-60° (decomposition) (3:1 Me<sub>2</sub>CO-MeOH), [ $\alpha$ ]<sub>25</sub>D 40° (c 0.1, HCONMe<sub>2</sub>); it gave with concentrated H<sub>2</sub>SO<sub>4</sub> in the heat a brown color; picrate, m. 246° (decomposition) (H<sub>2</sub>O). Base D, prisms, m. 228-9° (decomposition) (Me<sub>2</sub>CO), [ $\alpha$ ]<sub>25</sub>D -175° (c 0.2, CHCl<sub>3</sub>), did not give a color with concentrated H<sub>2</sub>SO<sub>4</sub>. Resinous IV in dilute

AcOH

treated with NaI gave IV.HI, m. 240-1° (decomposition) (H<sub>2</sub>O), [ $\alpha$ ]<sub>25</sub>D -95° (c 0.2, HCONMe<sub>2</sub>). IV.HI converted to IV and heated 3 hrs. with MeI in MeOH gave IV.MeI, m. 248-9° (decomposition). VI, m. 253-4° (decomposition) (Me<sub>2</sub>CO or MeOH-Et<sub>2</sub>O), [ $\alpha$ ]<sub>25</sub>D 0° (c 0.1, CHCl<sub>3</sub>), gave with concentrated H<sub>2</sub>SO<sub>4</sub> no color reaction.

IT 99018-91-4

(Derived from data in the 6th Collective Formula Index (1957-1961))